BOUND BY J. BESMONTS
J. MACDONALD CO.
NORWALK, CONN.

Dissertations

read by the

Candidates for Degrees and Licenses,

at the

Annual Examination

in the

Medical Institution of Yale College,

January 21-22,

1846.

Contents.

I. Josiah Hall Beecher,
On Eclampsia parturientium.

II. Jacob Thompson Buckley,
On The Teeth.

III. Judson Candee,
On Scrofula.

IV. William Augustus Dunrie, B. A.
On Homœopathy.

V. Joseph Bailey Elliott,
On Yellow Fever.

VI. Samuel Augden Hills,
On Iodine.

VII. John Wesley Hubbell,
On Follicular Inflammation of the Pharynx.

VIII. Prosper Kimball Hutchinson, B.A. (Amherst.)
On Hernia.

IX. George Whitfield Ives, B.A.
On Puerperal Mania.

X. Job Kenyon,
On Intestinal Worms.

XI. Jeremiah King,
On Spontaneous Hemorrhage. (misplaced after V, in binding.)

XII. DeWitt Clinton Lathrop,
On The modus operandi of Medicines.

XIII. Joseph Josiah Meigs,
On Phytolacca decandra.

XIV. Edwin Avery Park,
On Croup.

XV. Seth Pease,
On Apoplexy.

XVI. Frederick William Perry,
On man's physical adaptation to the natural world.

XVII. Samuel Wolcott Skinner, B.A.
On Hydrocephalus.

Digitized by the Internet Archive
in 2017 with funding from
Arcadia Fund

https://archive.org/details/thesesformd1842100yale_3

XVIII. Nathaniel William Taylor, B.A.
The Valedictory Address.

XIX. Charles Thomas,
On Bloodletting.

XX. Sylvester Wooster Turner, B.A.
Mens sana, in sano corpore.

XXI. Andrew Judson White,
On Varicose Veins.

I.

Dissertation

on

Eclampsia Parturientium.

By

Josiah Hall Beecher,

of Barkhamsted,

Candidate for the Degree of Doctor in Medicine.

Eclampsia Parturientium constitutes one of the most distressing and alarming accidents to which the parturient female is liable.

This term is used synonymously with Puerperal Convulsions, and by it, is understood that variety of Convulsions depending upon the puerperal state, or those which are met with in pregnant females, in women in labor, or those who have been recently delivered. They occur during the latter month of the period of gestation, during the process of labor, & some hours or even days after its termination. Ramsbotham mentions one case which took place 18 days after the birth of the child. Cases are on record also, which are said to have occured during the first half of the term of pregnancy, but they were, very probably, aggravated cases of Hysteria. A large proportion of cases occur during labor. The Author above quoted gives a record of 59 cases, in 28 of which, the woman was attacked during its progress, 17 came on before it was instituted, & 14 after its termination.

A Convulsive paroxysm may occur under two states of the system diametrically opposed to each other — The one in which the cerebral vessels are inordinately distended with blood, and the other when they are nearly exhausted of their Contents as after excessive hæmorrhage. When occurring in the latter state,

it is always considered as a highly dangerous if not a mortal symptom. The term Puerperal Convulsions is restricted however to those occuring in the first mentioned state of the system, and of this variety only shall I treat.

All classes of females are liable to this affection, but those most frequently affected, are such as are of a sanguine temperament, who are stout, florid, robust & of strong muscular fibre, or those who would be considered as predisposed to Apoplexy. Notwithstanding this, the nervous & delicate are by no means exempt; indeed most writers think a "naturally excessive sensitiveness of the nervous system" may predispose to the disease. The origin of attacks has been traced to mental emotions, as grief, despondency &c. Women in the primiparous state are more frequently affected, too, than those who have borne many children. Those also, who carry more than one foetus in utero are predisposed to Eclampsia, rather than those who bear but a single child. Of the 59 cases already mentioned as recorded by Ramsbotham, 48 were first births & 3 were twins. Of 30 cases by Collins 29 were first births — and the Worthy Prof. of Obstetrics, in this institution, remarks - "I have never seen but one case which did not occur in a first labor".

This disease is allied to Apoplexy inasmuch as it arises,

frequently, from the same Causes, is accompanied with Stertor, Lethargy, &c. It is unlike Apoplexy, however, because the latter affection, is never accompanied by Convulsive paroxysms, neither is permanent paralysis ever a Consequence of Puerperal Convulsions.

Eclampsia bears some resemblance to Epilepsy, also, in consequence of its violent Spasms; but these succeed each other more rapidly, they have no tendency to return at different periods of the patients life, nor is there any Aura Epileptica observable in this affection.

Hysteria, too, comes in for a place in the list of diseases which have some Symptoms in common with that under consideration, but which, nevertheless can seldom be mistaken for those of Puerperal Convulsions.

Instead therefore of dividing them into three distinct Classes, as has been done by Dewees & other writers, I prefer rather to imitate Velpeau & consider them under the general term which I have chosen.

The proximate & remote Causes of Eclampsia have been subjects of oft repeated & perhaps fruitless Enquiries It is not my design to enter into the consideration of them to any length, as I have nothing new to offer on the subject. — Suffice it to say, that of the remote the one most commonly mentioned is pressure on the brain, produced by simple congestion, or rupture of the cerebral vessels — Among the latter are enumerated indigestible articles of food in the Alimentary Canal, depressing passions, death of the foetus &c. But the most notable one is irritation of the

uterus, propagated from that organ to the brain. The state of the Atmosphere, too, is considered by many authors to have something to do in the production of the disease — And this opinion would seem to be strengthened by a remark of Professor Burs, viz - that he was acquainted with four cases, which occured on the same day in one neighborhood.

These cases occured in the depth of winter, & as Electricity is more easily excited in Cold than in warm weather, they might be adduced in proof of the theory of Ramsbotham & others, — that they are dependant on an Electrical state of the Atmosphere

Symptoms. Convulsions may arise suddenly, without any premonitory Symptoms, but usually there are signs which appear just before, & sometimes several days before the fit itself. They are such as might be supposed to arise from an overloaded state of the cerebral vessels — as intense headache, giddiness, sense of intoxication, inability to walk, drowsiness, ringing in the ears or deafness, impeded utterance, dimness or loss of vision, numbness of the arms &c. There will often be a temporary loss of the power of thought & sense of vexation, at the same time, the pulse is full, quick & hard. These symptoms may occur some weeks before the accession of labor, but if the patient be bled freely, the threatened attack will probably be prevented & she will [illegible] remain at the full term of gestation without their occurrence.

Occasionally, also, the woman may seem to be doing well & bear the commencing pains with fortitude when she will begin to talk incoherently, and experience the sensation as if there were a sudden flash of light in the room which will immediately precede the symptoms peculiar to the convulsive paroxysm. These are prominent & not readily mistaken for those of any other affection.

The woman becomes excessively agitated - face turgid & livid, the countenance assumes a hideous expression in consequence of the suffusion of the features as well as the distortion occasioned by the convulsive action of the muscles of the face; the angle of the mouth being drawn upward to one or the other side & twitched spasmodically - At the commencement of the paroxysm, the lower jaw is depressed, - but the flexor muscles soon act with great force, & the tongue, being protruded, is often severely lacerated, as the teeth come in contact. - Frothy saliva escapes from the mouth, tinged frequently with blood issuing from the wounded tongue. The eyes are protruded & drawn obliquely upward; one to the inner, the other to the outer canthus. Pupils usually dilated but sometimes permanently contracted. Eyelids half open & excessively agitated.

All the voluntary muscles of the body are affected with violent spasms, alternating with relaxation - The fore arms & legs are excessively pronated, hands clinched, feet & toes flexed & the body is bent backward often, as in Tetanus. Colombat, a recent writer, remarks that one side of

the body is, in general, more convulsed than the other.

The respiration is hurried & laborious. There is also great excitement of the heart & arteries the pulse being frequent, full, & rapid - The skin is dry & hot. Throughout the duration of the attack, the patient is entirely senseless & perfectly unconscious of surrounding objects.

The paroxysm continues but a short time, (Columbat says from 5 to 10 minutes,) when the organs of respiration & circulation resume their wonted action, and the surface is covered with perspiration.

The convulsion is followed sometimes by a gradual return to consciousness, and the patient appears as if awaking from sleep, but complains of violent headache & has no recollection of anything which has transpired during the existence of the paroxysm. This seeming improvement may disipel the fears of the attendants & restore quiet in the lying in room. Soon, however, another attack will dissipate their waning hopes; as it is usually repeated, with a longer & still longer & still longer intervals.

Although there is sometimes, (as has been remarked,) a restoration to consciousness, the patient usually remains in a comatose state, with complete relaxation of the muscles of the ~~body~~ body, without sensation or motion, the breathing being either laboured & stertorous, or sibilant.

The affection seldom lasts but a few hours, although it sometimes continues several days - One thing is not a little singular - viz - When the patient is entirely recovered, she retains no recollection of anything which

transpired during its continuance - although during the intervals between the paroxysms she might have seemed to be perfectly conscious of surrounding circumstances & answered questions readily & correctly.

Prognosis. This is stated by most Authors to be unfavorable, and at first view, judging from the nature & violence of the attack, it would seem to be so - but if proper treatment be adopted early the disease is rarely fatal. From some cause, there ~~seems to be~~ is much discrepancy of opinion with regard to the mortality of this affection as seen by different observers. This is probably owing to the difference in treatment. While Colombat estimates one half to be fatal cases, Professor Burns informs me that out of 25 or 30 well marked cases of Puerperal Eclampsia, which he has seen early, not one has proved fatal to the Mother, although the Child, with a single exception, had been born dead, when the convulsions came on before delivery. Ramsbotham estimates the fatal cases at 25 per cent. - Prof. Meigs of Philadelphia, at 15, & Davis at 10 per cent. — The above statement with regard to the death of the Child is concurred in by **all** writers. Colombat speaks of it as "a very common occurrence". Ramsbotham says "the Child is generally born dead" &c.

The Treatment should be prompt & decisive. If called during the continuance of the premonitory symptoms, we may prevent the occurrence of the paroxysm, as has been already remarked, by copious venesection. The quantity of blood necessary to abstract, at this time, may be estimated at 30

ounces— Still, as in every other disease, no definite rule can be given for the abstraction of blood. If the patient be robust, & of a sanguine temperament, it may be necessary to take a larger, & if delicate, a smaller quantity, than that mentioned above. The general rule is to let the blood flow until the symptoms are relieved— the pulse, instead of being hard, be soft & easily compressed.

If the Convulsive paroxysm shall have made its appearance, our first indication will be to prevent the tongue from being injured— This is best done by placing between the teeth a piece of Cork or some similar substance, which, while it keeps the jaws asunder, shall offer no impediment to respiration. This being done, as soon as the patient is so far quiet as to render it practicable, blood should be taken from the arm freely. The quantity above named may be appropriate here, but the judgment of the practitioner must be exercised in this case as well as the other, for a quantity which would be insufficient to subdue the disease in one individual might prove hazardous to the life of another. A decided impression should be made on the system by means of the Lancet, & if the first bleeding is inadequate it should be used a second or third time. It may be necessary in some cases to abstract 70 or 80 ounces before the disease is subdued. Blood may be taken the second time after the lapse of an hour, if the symptoms indicate its necessity. The administration of a cathartic too will be of essential service. Calomel & Jalap. (15 grs. of each) will form one of the best. If however the patient be unable

to swallow a purgative Enema should be administered. The common domestic one, of warm water & salt will, perhaps, be as beneficial as any other, or Oil of Turpentine may be employed if preferred.

Tartrate of Antimony & Potassa is also a useful remedy. It may be given at first so as to produce vomiting – and then continued in nauseating doses.

Much discrepancy of opinion exists among authors with regard to the administration of Opium, but I am inclined to the belief that it will be of essential service, after free depletion with the Lancet.

I think, in most cases, the anodyne & hypnotic properties of this article are especially called for, to allay the nervous irritability which usually exists – For this purpose 40 drops of the Tincture may be given once in 2 or 3 hours, or it may be combined with Tartar Emetic as in the following mixture

℞. Tinct. Opii ℥iij

Antim. et Potass. Tart. gr. v

Aquæ ℥ij – Misce.

Of this a teaspoonful may be given every hour.

The Daturae (Stramonium & Datula) have been recommended by some as a substitute for Opium – They may be of some service, but are not to be relied upon.

Cold applications to the head, sinapisms to the feet, and

subjacents to the thighs & neck, are useful adjuvants in the treatment, and, the first especially, should never be omitted.

If circumstances are such as to render it practicable, the delivery of the child should be effected immediately, by means of the forceps — or if these cannot be employed in consequence of distortion of the pelvis & the os uteri is sufficiently dilated, we should be justified in using the Perforator & Crotchet, as the child is almost uniformly born dead — This latter mode should not however be adopted until every other hope of saving the life of the mother had failed —

New Haven
January. 1846.

Josiah Hall Beecher.

II.

Dissertation on the Teeth.

By
Jacob Thompson Buckley,
of Canandaigua, N. Y.
Candidate for the Degree of Doctor in Medicine.

On the Teeth.

In early infancy nature designs us for the softest & most simple aliment so that no organs of mastication are required; but as we advance in life & require a different & more solid food she wisely provides us with teeth, which make their appearance through the gums.

They are distinct organs, of a dense, hard & white bony structure, eminently adapted to the purpose for which they are designed, viz. that of dividing & comminuting the food, thus preparing it for the organs of digestion; in short they are organs of mastication. Each tooth is anatomically divided into the body or crown, the neck, & the fang or root.

The body is that part which appears above the gums & is the most essential part; since by its being thus exposed, it performs all the offices for which these organs are produced, as mastication &c. The neck is that part around which the gum adheres, separating the crown from the fang. The root or fang is its articulating process by which it is connected with the alveolar process of the maxillary bone, in which it is imbedded. The bodies or crowns of the teeth vary in form & size according to the various offices required of them, some being merely for cutting, are supplied with sharp edges, while others have

grinding surfaces. The roots also vary in form, number, size & relative position in accordance to the degree of firmness of attachment which the various offices of the teeth require. Each tooth has an internal cavity through the fang & terminating in the crown.

This cavity is very small where it enters the fang, gradualy increasing in size till it terminates in the crown, where it has very much the form of the external surface of the tooth to which it belongs. In general it may be stated that the whole cavity is of the form of the tooth itself; larger in the crown, gradually diminishing through through the whole length of the roots, at the extremity of each of which it terminates in a minute foramen.

This cavity is not cellular but smooth on its surface, & is filled with a membranous & pulpy substance which is highly vascular & Exquisitly sensitive. It owes its sensibility to the expansion of the nerve upon it. The roots externally are covered by periosteum terminating at the neck where it is connected with the gum.

The teeth are composed of two substances differing much in structure & appearance — the enamel & the bony part.

The enamel is that which forms a cover or coat for the crown of the teeth, terminating at the neck. It is a very hard substance, the hardest in the whole body, & is of a milk white appearance. It differs so clearly from the other substance, which it covers, in color & structure

that in whatever direction the crown is broken, a plane line marking the limits of the two substances may be seen. The coat of enamel is thickest on those surfaces of the teeth which are opposed to each other in mastication, i.e. on the cutting edges of the incisores, the grinding surfaces of the molares & the points of the cuspidati. It grows gradually thinner towards the gums, being generally thicker on the outer than on the inner surface of the teeth. Enamel consists of Phosphate & carbonate of Lime, joined to a very small proportion of animal matter, (some detect the Fluate of Lime) & from its nature it affords a hard & almost indestructible surface to withstand the action of the food we masticate. Notwithstanding its hardness it sometimes becomes worn away by long continued use in chewing, until the proper bony part of the tooth is reached; which is then much more rapidly destroyed, so that the surface of the tooth becomes concave, owing to the external crust of enamel resisting the trituration longer than the bony part.

The enamel is much less prone to decay than the osseous substance of the tooth. The other substance into wh we divide the teeth is the bony structure. This composes the greater pt of the body & the entire fang of the tooth. It is much less hard & brittle than the enamel, but it is more dense & compact

than any other bony structure in the body. In color it inclines more to yellow than the enamel, & this is observable, particularly towards the end of the fang. It differs from other bone in never containing any medullary cells, nor indeed any cellular structure, however large the tooth or cavity may be. It consists of the same earthy materials as those which compose the body of the Enamel, only united with a much greater proportion of animal matter. Tables of analysis founded upon the experiments of several celebrated chemists differ in some slight circumstances from each other; some announce the existence of Fluoric acid or Fluate of Lime. Berzelius states that he has found this latter substance both in the enamel & the bone of the teeth. His analysis appears to be more elaborate than that of any other chemist, it will be found to record the existence in them of several substances the presence of which has not been noticed by others. According to this celebrated chemist, the enamel of the adult teeth contain in 100 parts, —

Phosphate of Lime — — —	85.3
Fluate of Lime. — —	3.2
Carbonate of Lime — —	8.
Phosphate of Magnesia — —	1.5
Soda & Muriate of Soda — —	1.
Animal matter & water	1.

The bony structure is stated by the same authority to contain:—

Phosphate of Lime — —	52.
Fluate of Lime	2.
Carb. of Lime	5.5
Phosphate of Magnesia	1.
Soda & Muriate of Soda	1.5
Gelatine & water —	28.

The manner of the formation of the teeth is a subject which has occupied the attention of Physiologists ever since Physiology became a science, & only within comparatively a few years has it been perfectly understood. It is a process, different from that of the formation of any other part of the body & knowledge of which we are indebted to the minute & laborious dissections of Dr. Blake & Mr. Bell. They found that very early in fœtal life, say two months after conception, that by carefully examining the jaws, there is seen lying along the edge of each maxillary arch, a soft jelly like substance; which at the third mo. has assumed rather a firmer consistence & is contained within a shallow groove of bone, wh constitutes the first step towards the external & internal alveolar plates. At this period the pulpy substance is partially divided into distinct portions, by filaments of bone shooting across from one plate to the other forming cells.

By removing either the external or internal plate, the contents of these cells will be exposed. They consist of membranous bags called "capsules of the Teeth" which contain the rudiments of these organs, consisting of certain pulpy substances, covered by extremely thin delicate & highly vascular membranes which are secreting membranes. The bone of the tooth is the first formed, the enamel next & the fangs are last in order. The osseous substance is secreted in successive layers, from this delicate membrane which covers the pulp. It is first deposited on the points of the teeth & assumes by degrees the appearance of a thin shell, covering the pulp & its proper membrane, & as the pulp is originally of the same form as that which the crown is destined to assume, ossification commences at as many points, as the future tooth will have Eminences on its surface; thus the incisores & bicuspidati will commence with one point & the bicuspidas & molares with several. When the bone of the tooth is somewhat advanced in its formation, the enamel begins to be deposited on its surface by the vessels of the capsule. This deposition is also first seen on the masticating surfaces, thence extending to the neck where it terminates & after it has acquired its requisite deg. of thickness the fang begins to shoot down, & the tooth to make its appearance through the gum. This is called dentition.

The time at which the teeth thus appear in the cavity of the mouth, varies in different cases, instances are on record of children having been born with teeth, & others of dentition taking place at comparatively a late period. In general the teeth begin to appear about the 6th 7th or 8th mo. For the most part they appear in pairs; ie, the two corresponding teeth in the jaw come through at the same time. The first to show themselves, are the middle incisores of the lower jaw; & in a few weeks after the corresponding teeth in the upper jaw appear. In about a mo. afterwards we may gen expect the lateral incisores of the lower jaw, & these in a short time are followed by those of the upper jaw. From the 12th to the 14th mo the anterior grinders of the under jaw appear & those of the upper at about the same time; at the 16th or 20th mo. the cuspidati appear, 1st in the under & then in the upper jaw & about the 20th mo. the posterior grinders may be observed.

Thus in general about the 2d or 3d year the temporary teeth are complete. They are 20 in number; 10 in each jaw. consisting of 4 incisores, 2 cuspidati & 4 grinders, there being none to correspond to the bicuspides of the permanent set.

In form the teeth of the temporary set resemble those of the permanent, wh are destined to follow them, the chief

difference being that they are of much smaller size, to correspond to the size of the infant jaw. as the teeth have no principle of growth within themselves, they are destitute of the power of increasing in size as the jaw grows; Hence as the jaw enlarges, they become loose & are discharged, at a certain period to make room for a new set, adapted in form & magnitude to the dimentions of the adult jaw.

as the age at wh the teeth make their appearance varies considerably; so also the age at which the change of the temporary for the permanent set takes place varies, but in the majority of instances it may be expected, at about 7 years of age to begin.

The 1st permanent molares usually appear before the shedding of any of the temporary teeth, wh may be considered an indication of the approaching change, thus of the permanent teeth, those which are first formed are the anterior molares, the first point of ossification on wh may be seen at birth, & at the age of 12 mos or less, it will be found to have proceeded to a considerable extent on these teeth, also on the permanent incisores, - ti have commenced on the lower cuspidati the upper ones generally being a month or two later. at from the 6 or 7 years of age the whole of the permanent teeth are more

or less ossified, excepting the dentes sapientiæ, so that before any of the temporary teeth are shed, there are in the jaws no less than 48 teeth, 20 temporary, all of wh are perfected, & 28 permanent, in dif degrees of development within the bones.

Soon after this the temporary teeth begin to be shed, by the absorption of their roots & the increase in size of the jaw, & those of the permanent set to rise & fill the vacancies.

The adult teeth although formed upon the same general principles by those by wh the temporary set are formed, differs in some remarkable points from that process." The rudiments of the teeth, instead of being independant in themselves like the temporary teeth, are in fact derived from them, & remain for a considerable attached to & intimately connected with them. Mr. Bell says, "at an early period in the formation of the temporary teeth, by a process wh reminds us of the gemmiporous reproduction in the lower classes both of animal & vegetable life, the investing sack gives off a small process or bud, containing a portion of the essential rudiments; namely, the pulp covered by its proper membranes." This constitutes the rudiment of the permanent tooth. It commences in a small thickning on one side of the parent sack, wh gradually becomes more & more circumscribed,

& at length assumes a distinct form, though still connected with it by a pedunele. For a time the new rudiment is contained within the same alveolus with its parent, there being an excavation, made by the absorbents for its reception, by a process, which, says Mr. Bell "is as far as I am acquainted unparalleled in the phenomena of physiology unless indeed the absorption of the roots of the temporary teeth may be considered as analogous - which has not been noticed by any writer on the subject".

The situation of each permanent rudiment when its corresponding temporary tooth has made its appearance, is "beneath & a little behind the latter & rather farther from the center of the jaw". Thus situated the process of ossification goes on in the same way as in the temporary teeth, till the bony part of the crown is produced, then the coat of enamel is secreted upon that & finally the process is completed by the elongation of the fang or fangs by wh they are held firmly in their sockets. The time at wh the dentes sapientiæ appears varies rather more than that of the other teeth; it may be looked for, from the 17th or 20th to the 30th; at wh time if none have been lost the teeth will number 32. this being the full number of the perma-

ment set. These teeth are so arranged in pairs in each jaw that those on one side correspond exactly in size, figure & use with their fellows on the opposite side; also the crowns of the teeth in the two jaws resemble each other in size figure & use, the only difference being in them at all, is in the number size & shape of the prongs of the molares, those of the upper jaw having 3 situated in the form of a triangle, while those in the under jaw having only 2 parallel to each other & of a flattened appearance. The teeth have commonly been divided into incisors, canine & grinders; but the more scientific arrangment substituted for this by Mr. Hunter, & the one at present generally adopted, is into 4 classes. 1st. The incisores which include the 4 front ones in each jaw. 2d. the cuspidati, 2 in number, situated next to the incisores in each jaw. These are vulgarly called canine & eye teeth.

3d. The bicuspides, 8 in number situated 4 in each jaw. next to the cuspidati. These are thus named from their being furnished with two distinct prominences or points, by which they are most clearly distinguished, as well as in size from the back teeth, with which they have been included under the common denomination of grinders.

4th. The molares. 3 on each side of either jaw making 12 in all.

These classes differ from each other in size, form, articulation & use. The incisores or cutting teeth occupy the most anterior position in the jaw, & in appearance are wedge shape, having an anterior & posterior surface, the anterior convex, the posterior concave. The two surfaces are broadest at at the cutting edge & they grow gradually ~~smaller~~ narrower from that part to the neck; a side view of the tooth presents the narrowest part at the cutting edge, becoming thicker & thicker towards the neck wh makes the wedge like form. They have but one prong & that is compressed laterally, becoming smaller to the end. The upper incisores are considerably larger & stronger than lower ones & projecting in front they usually overlap them to a small extent.

The cuspidati differ from the incisores in being thicker & stronger, possessing a long & large fang which affords them a much firmer attachment to the alveolar process. The body is thick & nearly cylindrical, terminating in a point which projects a little beyond the other teeth. Their use is evidently to divide substances which prove to hard for the action of the incisores.

The Biscuspides resemble each other very much in size & form. They are thicker than any of the teeth yet described, from

the external to the internal surface, & much flatter at their sides. The body terminates in two points, the external one of wh is the most prominent. It is broadest in its lateral direction at the union of the two points & from thence it gradually diminishes to the extremity of the root, wh sometimes terminates in two distinct points, but more generally they have the appearance of two roots partially or entirely joined together. Their office seems to be to prepare substances more perfectly for trituration by the molares, which come next in order.

The molares differ from the bicuspides in being much larger & having more prominences on their grinding surfaces & in having more fangs. Of these each jaw contains 6, 3 on either side. The first & second molares are the largest & strongest of the teeth, presenting broad grinding surfaces, upon wh are 4 or 5 prominences & corresponding depressions. In general appearance the bodies of the molares resemble each other, but vary in their articulating processes or fangs. Those in the upper jaw have 3, two externally, round & nearly parallel to each other, the third one is internally & diverges from the other two towards the palate.

Of the two roots of the lower molares, they are broad, flat & nearly strait, situated parallel to each other, the one anterior

& the other posterior. The third molares differs in many particulars from the two first & from its appearing late in life it has received the name of dens sapientiæ. Its body possesses the same general formation with the others, the roots however are not so regular & distinct, being generally short & coalesced, often presenting but one fang & that short & conical in appearance, so that from a large quantity of extracted teeth they may always be selected.

They are the most short lived of all the teeth; appearing late in life soon to decay & disappear.

In the teeth there is observed throughout the whole series a regular gradation in size form & use, thus the cuspidati forms the connecting link between the incisores & bicuspides & these last are in every respect intermediate between the cuspidati & the molares.

"The incisores are formed for cutting the food only; the cuspidati for tearing it, the bicuspides, partly for tearing & partly for masticating & the molares, for the sole purpose of trituration."

Again the incisores have but one root, & that nearly round & simple: the body flat, with a cutting edge.

The cuspidati have also but one root, but flatter and longer; the body being rounded terminating in a conical

point or apex. The bicuspides have a root frequently terminating in two points; when not thus, it always has the appearance of two prongs coalesced. The body has two points instead of one, approaching in form to the molares. The number of prongs in the molares is increased to 3 in the upper & two in the lower jaw, for the purpose of giving their larger bodies a more firm attachment to the maxillary arch, as they are destined to harder service than any of the preceding. The teeth in the upper jaw are rather larger than those of the under, therefore a longer alveolus is required to hold them, consequently the incisores of the upper jaw project a little beyond & overlap those of the under, when the mouth is closed. The teeth are not only for mastication, but make an essential part in the organs of articulation; besides a handsome set is a great ornament. They support the jaws when they are closed, & thus elongate the face, giving a manly expression to all its features.

When they are lost, the alveolar processes are absorbed, thus taking from the jaws half their depth, which so shortens the face, that it looses its manly appearance & again assumes the form that it bore in childhood

Notwithstanding their utility in mastication & articulation,

In giving form & expression to the face & thereby rendering much to its beauty, they are the most subject to decay & loss of any of the organs of the human body. Few there are but what have experienced some of the ill effects of disease teeth, & to many they are a source of constant pain & annoyance. The principle disease & almost the only one to which the teeth are subject, is called caries. It begins by a speck on the surface of the enamel, & when it has destroyed that part, it attacks the bone of the tooth. Its progress is now much more rapid; owing to the less dense structure of the bone than of the enamel. The enamel of the tooth being an inorganic substance & perfectly insensible, & the bony structure beneath it, so void of feeling that the destruction of these parts is effected without pain or suffering. At this stage of the disease, its progress may be permanently arrested by very simple & feasible means; which are, simply, the complete removal of all the carious matter from the cavity, thus leaving its walls white, & perfectly clean & then to "exclude the subsiquent influences of the external causes of its recurrence, by carefully & completely filling the cavity with a substance at once indestructable & not liable to chemical change.

The result of the operation will depend upon the form &

situation of the cavity, upon the more or less complete excision of the decayed part, the substance employed in the operation, & the evenness & solidity with which it is prefsed into the tooth.

Notwithstanding the diversity of opinion with the profession in regard to the cause & nature of this disease, this is the plan of treatment universally adopted, and when the circumstances of the case are favorable for its success, & the operation judiciously & properly performed it is so perfectly effectual, as permanently to arrest the progrefs of the disease.

III.

Dissertation on Scrofula.

By
Judson Landee,
of Oxford,
Candidate for the Degree of Doctor in Medicine.

The word Scrofula is said to be derived from σκροφ a swine, though I must confess that I can see no reason for applying such a name to the disease under consideration

The term Struma is equivalent to Scrofula, and these two are used synonymously.

In this country popularly these diseases are often denominated the Kings Evil — from an idea that was prevalent in former times, and which and which has not long been abolished that the touch of a royal personage would cure them. It is recorded [illegible] that he practiced with the royal touch to such an extent as to include a large proportion of his whole nation. It was [illegible] that it [illegible] [illegible] expectation of his patients yet upon any new declaration of a fresh healing, his subjects were again as fast as if it had never failed — But when the [illegible] Cromwell came into power it failed and from that time, the royal touch like [illegible] of kindred [illegible] has been laid aside, though the name King Evil is retained

"To undertake to fix an epoch for the first ravages, caused and produced by Scrofula, and to seek in the earlier periods of the worlds history, traces and vestiges of this formidable disease would be to occupy oneself with objects better adapted to amuse curiosity, than to advance the progress of the Science of medicine.

The history of the ills to which flesh is heir, cannot in fact be truly useful or interesting to the medical man, unless it instruct him upon the causes, develop the progress, mark the changes, and indicate the remedies applicable to the particular disease.

Although we may trace the existence of Scrofula among the earliest historical monuments, although we could show it to have been known to the Phenicians the Greeks or the Egyptians, though we find in the works of the predecessors of Hippocrates, data which are evidence of its antiquity, if the assemblage and combination of ideas, opinions, changes, disputes and discusses do not assist us in forming a fair opinion of the disease, they bring no real advantages, and our investigation will have been useless. By consulting the ancient authors but little exact information can be

obtained of this disease, only that it existed and theories were of course formed by different authors, as to the causes, satisfactory to themselves perhaps, if not to those around them—

This is one of the most common diseases that the human race is afflicted with and it appears to be fast increasing. Why need we be surprised that this is the case, when we take into consideration, that Scrofula is not only transmitted, from one generation to another, thus keeping up with the increase of population— but, that it frequently attacks the children of parents, who themselves are not under its influence, when those parents, owing to their social position or some other circumstances, fall into a peculiar State of health which predisposes to it— Lugol a distinguished writer on this disease, says "that Scrofula is the most active principle of the destruction of the human race— No other disease cuts off as many and so young victims, and there is no cause that abridges human life so much—

It manifests its dreadful effects in the early months of fœtal existence, for it causes many of those spontaneous abortions, which destroy at least one quarter of those

affected, before they see the light; after birth it arrests their physical and moral developments; it complicates all the diseases, all the evolutions of infancy and youth, which it renders laborious and full of danger. Finally it reveals its presence more formidably by a great number of morbid states, the common origin of which has been hitherto ~~be~~ overlooked and which for this reason, authors have described as so many special diseases.

It is a specific inflamation - Strumous inflamation is not confined to the texture in which it commences, but it often passes to the adjoining textures -

It is generally considered a chronic inflamation and is always attended with an atonic diathesis -

It is less active and less rapid in its progress than common phlegmonous inflamation as a general rule - The characters of inflamation are less strongly marked here; it does not in general excite so powerfully those sympathetic, influences in other parts of the system as we observe to take place in common ~~&~~ inflamation; it wants that firm swelling, that bright red color, and that acute pain. Yet in subjects that appear to be scrofulous, we often find inflamation existing, with all its characters pretty strongly marked -

When suppuration occurs in Scrofulous inflamation, the matter does not readily and quickly make its way towards the surface and the pus formed is peculiar and characteristic. It is not homogeneous or smooth, but consists partly of a thin serous, whey like fluid, and partly of fragments of a substance resembling curd; and the ulceration that ensues is marked by corresponding peculiarities. The ulcers are indolent and show but little disposition to heal. Scrofulous inflamation compared with common inflamation, is in general but little influenced by remedies.

Scrofula although always the same malady, presents itself in various forms, which are determined by the nature of the tissue affected, and by the mode in which the morbid element manifests itself. It may attack the different tissues of the body, in one person it may affect the mucous system more particularly, in another the dermoid cellular, osseous system &c. The appearance of Scrofula in one organ in particular, intimates its more or less proximate development in another point of the economy. Different localities vary the character of Struma.

It frequently affects the mucous membranes and is characterized as follows. There is a lax and spongy turgescence of the mucous

membrane preternatural redness and tenderness a granular
appearance, an irregular and jagged ulceration, a secretion
and discharge from the ulcers of a purulent (and, curdy matter
When it affects the Spinal column it not unfrequently produces
angular distortion. A great majority of the Psoas abscess
are a scrofulous inflamation of the cancellar texture
of the lumbar vertebra —
The Cornea of the eye is affected by it. In this case a minute
vesicle first makes its appearance; this after a time becomes
opake and then an ulcer is formed
When this inflamation occurs in the glands it is characterized
by an indolent enlargement, after they attain a certain
size they often become stationary, or at least are
very slow in their progress of increase or diminution
The commencement of the attack is often unperceived
til it becomes of some Considerable size - The lymphat
ic glands are more particularly affected. This chronic
enlargement of the glands is very generally recognised
as Scrofula, more so than any other form of scrofulous infla-
-mation
Another more firm kind of tumors are seated on the
joints, The affected part enlarges without acquiring any

circumscribed determinate form, By degrees the tumor becomes softer, and at last particular portions near the surface become more prominent, suppurates, bursts, and discharges matter But as suppuration is only partial, and the discharge inconsiderable, it has little effect in diminishing the size of the swelling

It affects the synovial membrane (and the cancellar texture of the bone) is known by the name of White Swelling— rarely does this end in resolution, suppuration supervenes and caries of the articular extremities succeed—

When Struma affects the muscles they become enlarged and much paler and softer than natural. The most serious case of this kind is (so named by the French) "Hypertrophie" of the Heart— When it fixes its seat in the osseous system specially; caries, necrosis supervene in every degree— The bones of Scrofulous persons partake of the general disease in the constitution: they seem to contain a smaller proportion of the Phosphate of Lime, and a larger one of gelatinous matter, than what exists in a healthy bone. If the Strumous diathesis be excited by the fracture of the bone, the parts unite with the greatest difficulty— Serous membranes are subject to this disease This usually occurs in the peritoneum and peritoneal coat—

of the abdominal viscera. The glands of the mesentery enlarge and become charged with tubercular matter; but they very rarely suppurate. This forms that fatal disease Tabes Mesenterica. Strumous disease is exceedingly common in the mucous follicles of the small intestines, also in the glands belonging to the Cæcum. In the nervous system, tubercles are by no means unfrequent; they are met with oftener in the brain than in any other part of the system. The Lungs are the great seat of tubercular deposits. They are at first exceedingly minute and very numerous. They increase in size til finally they coalesce, suppuration takes place, the matter is expectorated and thus abscess of large size are formed. Hence we have one very common form of Consumption called in Good's Nosology Tuberculosis

Tubercles and scrofulous inflammation occur often in the same individuals. There appears to be great deal of discrepancy among pathologists, as to the nature and origin, and precise seat of tubercles, and as to the changes they undergo. Laennec, who paid great attention to tubercles, states that they are, at first, small, firm, greyish, semitransparent bodies, which enlarge and become opaque. In that condition he calls them crude tubercles; at length the

after an indefinite period, these crude tubercles begin to grow soft in their centre, and are by degrees converted into a liquid mass, having the consistence of cream"

Andral, says that the tubercles are, in the outset, small round opaque yellowish bodies, unorganized, and of various degrees of consistence. He ascribes their softening to the admixture of pus, poured out by the textures immediately surrounding the tubercle: which has irritated and inflamed the textures as any other foreign body might. Other theories have been set forth, and it is difficult to determine as to the correctness of either of them. The points in question possess more of curious interest than of practical importance.

Scrofulous diathesis. The external marks of Scrofula are generally considered to be, a thin state of the external integuments, so that the cutaneous vessels are distinctly seen ramifying through them, light hair, white skin, blue eyes, languor of countenance, thick upper lip: a looseness and flexibility of muscular fibre. though it is not absolutely essential that all these appearances should be present.

Some authors maintain that there are two kinds of bodily constitution in scrofulous subjects: that in some respects are quite different from each other. one set

of scrofulous subjects present a pale and bloated countenance
, generally rather a tumid abdomen, a flaccid, loose
state of the muscles; there is languidness in the circula
tion, so that the extremities of the body are cold, indeed
there is a kind of torpor in all the organs and functions
of the frame, whether bodily or mentally—
In the other set of scrofulous subjects, there is an excess
or unnatural color in the face; there is rather an
excited and rapid circulation— a circulation
that is easily accelerated by any external influence;
there is a rapidity in the performance of the various
functions, both bodily and mental; such children
often appear to have a development of the intellectual
capacity greater than might be expected at their
period of life, and all external influences act more
powerfully on individuals of this description
It is next to impossible to point out the particular char-
acteristics of scrofulous persons, for they differ very much
in different individuals, though there are generally
some marks by which you can readily distinguish
this diathesis— The neck presents two opposite conditions:
either it is thin and elongated or it is short and thick

very commonly you will find in scrofulous patients, a vicious conformation of the chest: the thorax is narrow and arched in front - pigeon breast as it is termed: - the shoulders are raised - The head particularly the posterior part is large, and the temples somewhat depressed, great pronenes to slight catarrhal affections - In the greater number of patients the digestive functions are irregularly performed, the appetite is depraved: Suffer frequently from diarhea - the articulations are large, this is particularly apparent at the knee and Elbow joint. Each of the appearances I have enumerated may exist without a scrofulous constitution, but the conjunction of a certain number of them is most important and calculated to produce a conviction of the disease under consideration -

The liability to scrofula in that portion of the human race who are subject to it does not extend equally throughout the whole period of life: it is confined to a certain extent to the age of childhood, the time intervening between birth and puberty. In many individuals the whole of this time is a succession of attacks of scrofulous disease, in the Lymphatics the eyes. ears, Skin and joints -

In individuals who have scrofula exhibiting, all these characters, and extending over the whole body, who are affected to the period of puberty by successive attacks, it is not uncommon to find that such affections cease at this time; and when the changes which then take place are accomplished, the sores are all healed, and the individual becomes quite vigorous. At the same however, that this beneficial change takes place, as regards the disease externally, it may be developed in more important parts, as the lungs.- Some individuals are more or less affected with Scrofulous disease of the lymphatic glands during life time, without experiencing particular suffering from it. During the period of childhood and youth the lymphatic glands are exceedingly prone to Scrofulous inflamation; especially the mesenteric and cervical glands. But in adult age tubercles, are beyond all comparison, most frequent in the respiratory organs.

Causes. The investigation of the causes of Scrofula presents many difficulties. We find that no class in society is exempt from its ravages - all are on the same platform - neither the splendor of one class nor the wretchedness of another have prevented their similarity in disease. It exists in climates

which is extremely different – The predisposing cause is both hereditary and acquired. The remote cause is of a debilitating kind, We can readily see what are likely to prove occasional and cooperative causes: or those calculated to bring the remote cause into a state of activity – They may consist of everything that directly lowers and reduces the tone of the living fibre and puts the system out of that state of firm and vigorous elasticity, which is the best prophylactic against the disease, and keeps the scrofulous diathesis most effectually in a state of subjection. Cold combined with moisture is a direct exciting cause. Hence considerable vicissitudes of temperature are favorable to the occurrence of scrofulous disease, which consequently is more common in countries where the atmosphere is moist and variable.

Heat as a relaxing and debilitating power, tending to produce languid action, is also a frequent cause, whenever this agent is applied in excess and habitually: and particularly like cold when it is combined with sudden variations of temperature – It is for this same reason we find that scrofulous patients suffer more at one season of the year than at another. Their complaints are aggravated in Winter

and Spring, while they are better in Summer and autumn
Insufficient and unwholesome food and excess in point
of diet - These causes tend to disorder the mucous membrane
of the alimentary Canal, which is so liable to be affected
in Scrofulous subjects - A defective digestion continued for
any length of time - must certainly produce Chyle or blood
of a vitiated quality, and unfit to replenish the waste
of the body, as the constant use of unwholesome food -
The nutrition of the body becomes ~~affected~~ vitiated at its
Source - The crowded dwellings which are inhabited by
the poor in our large cities, the confined situations they
live in, the insufficient clothing they have, their want of
fire and warmth during the winter, bring on in their
Children, a state of the digestive, the cutaneous and the
muscular system, which can take no other name but
Scrofula. This is particularly the [illegible] in many of the large
manufacturing towns in England -
Many Children are sent by their over anxious parents to
School, when quite young and there compelled to Spend
part of their time in a crowded room, while their natural
buoyancy of Spirit would otherwise lead them to occupy
in active exercise in the open air. This I have no doubt

promotes the access of Scrofula — various diseases possess a tendency to give rise to scrofulous ~~diseases~~ diathesis, to wit, Measles, Scarlatina & Whooping Cough: but it would seem, that it is rather by the influence of cold and errors of diet during the stage of convalescence from these diseases. Many accidents which would not be followed by any serious consequence to persons enjoying good health, produce severe Scrofulous affections in persons predisposed to the disease — But for these a Scrofulous predisposition might remain dormant oftentimes in the constitution through the whole period of life, and descend to, and disorder the next generation.

It is not contagious, nor can it be communicated by inoculation Kortum tried to transfer Scrofula from one person to another by inoculation — although he took great care to insert the matter completely and repeated the experiments, yet all his attempts failed —

Treatment This is one of the most difficult diseases to combat with any degree of success. It belongs to the class of diseases termed constitutional, by this is understood a disease so identified with the economy, that a considerable change or impression must be made upon the system generally, before this condition can be subdued — It is not rare that we see the strumous constitution losing its intensity

under the influence of these changes brought about at the critical period of life. Hence there is no medicine that has the power of completely correcting the peculiar of constitution implied by the expression Scrofulous habit. All authors on this subject inform us that disorders of the chylopoietic viscera accompanies and precedes Scrofula

The digestive powers are weak and irregular, the bowels either constipated or affected with mucous or serous discharges. Chronic inflamation or irritation of the mucous membranes is connected with and concerned in the formation of Strumous habit. This must result in derangement of the secreting and absorbing system. The restoration then of tone to these viscera the allaying of chronic irritation of these membranes constitutes an important item in the treatment of this disease. Pathologist say that in Scrofula there is a predominance of the white tissue over the red and a want of equilibrium between the lymphatic & vascular system. Now the furnishing of better chyle to the blood must assist in restoring the lost

equilibrium — "the prominent indications then, are to restore the integrity of the digestive, perspiratory, hepatic and intestinal functions, and to support the general energies of the system. The healthy action of the liver may be considered of primary importance." —

In this purpose some recommend Mercury in some form in small doses, while others condemn them wholly. Clark says that undoubtedly much caution is required in employing Mercury in this disease. He thinks, when it is given in small doses at proper intervals, followed by mild laxatives, or even in [illegible] purgative doses, it is [illegible] equivocal beneficial in every variety of scrofulous disease. He recommends that when the bowels are in a loaded condition and tongue, the treatment should be commenced by pretty active doses of some purgative, and this should be repeated [illegible] to relieve that the [illegible] recommendations [illegible] [illegible] [illegible]

by a dose of Rhubarb & Carbonate, When the intestinal canal has been adequately evacuated in this way, he depends on giving blue pill, in two or three grain doses every night, with a pretty smart purgative every fourth or fifth day. From such a course & management, in conjunction with proper dietic regulations, he says he has in several instances obtained the most decided benefit. After the action of the liver and bowels has been in some degree, brought to a regular state, benefit will in general result from the employment of Tonics

There appears to be a diversity of opinions among different authors as to the propriety of using mercurials internally in Scrofula, some claiming that they have succeeded better with a proper use of Calomel or such than any other remedies, while others condemn them in toto — at the same time —

It would occupy too much time to mention the different methods of treating this disease by various authors, therefore I shall briefly state the views I have formed on the subject by reading & from seeing a few cases.

The constitutional or general treatment, then consists in a proper and efficient use of Deobstruents & Tonics which it is often necessary to combine acrids, to remove torpor and thus rouse the system to the proper medicinal effect of Tonics—

If costiveness give cathartics, Rhubarb & Ipecac is a very good combination - If there is debility you are not to stop peristaltic action, altogether—

But the few cases I have seen with one exception there was a chronic diarrhea, and this was [illegible] the patients— Such require some astringents- The Cystus Canadensis or Frost weed given freely in form of decoction, has the reputation in this vicinity of being a very useful article—

There is a long list of veg. Tonics that have been used ~~[illegible]~~ Cinchona [illegible] [illegible]

An indiscriminate use of the Tonics is bad—

Iron & Comum is a valuable combination - also Iron & Myrrh - Nearly all the sea plants have been used with more or less success for a long time - [illegible] has been highly [illegible]

I saw a case treated successfully by taking freely of a

decoction of Sarsaparilla internally and applying a
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
he has not had a return of the disease as yet —
Iodine and its various combinations seems to be
the [illegible] [illegible] in the opinion of some physi-
cians [illegible] and [illegible] [illegible] but it is a [illegible]
[illegible] [illegible] [illegible] [illegible] and has performed
many cures.

IV.

Dissertation on Homœopathy.

By
William Augustus Durrie, B.A.
of New Haven,
Candidate for the Degree of Doctor in Medicine.

In treating of Homeopathy it will not be my object to give a long & elaborate history of this noble humbug, nor enter minutely or deeply into the merits which it possesses. My intention is simply to present before your minds once again a few of the most prominent absurdities with which this new system is rife, that you may laugh at the fantastic vagaries of Hahneman, or sorrow that men should suffer themselves to be gulled by them.

Visionary Germany gave this creation, Homeopathy, birth, — Germany that land from which has emanated every thing wild & supernatural & therefore a fit place to originate such an absurdity — as that which we are contemplating. Homeopathy is her last humbug, and by far the greatest, the strongest & the most enduring. The history of Medicine is filled with theories, but they have been shortlived. They have been broached and propagated by their supporters, and then have died and been forgotten. But now in these later days of enlightenment when the mists of obscurity which had so long hung darkly over the science of

of Medicine, were being dispelled by the overpowering
rays of truth & reason. and the medical horizon
was fast brightening with the dawn of better days.
this last theory - this big humbug comes forth
finished with its own merits, a strong man armed,
propagates its new absurdities. and every where finds
fools enough whose credulity allows them to be mis-
erably duped - who receive their doctrines with open
affections. and welcome them to their warmest embraces.

So long as humanity or the feelings which are
capable of being developed in the human breast remain
as they have hitherto existed. so long will every new
theory - every thing new or unheard of; find its friends.
admirers. and advocates. ——

Hahneman was a great genius. When even a boy
his superiority - evinced itself & placed him above his
fellows. As the mighty workings of his mind revealed
to him a sense of his greatness. he felt himself im-
pelled to strike out a new path in a higher sphere.
From the profound accuracy of his experiments &
observations. & this indefatigable search after truth
Hahneman seemed a fit instrument - to rid the

Medical Science of its many monstrous absurdities, and elevate it to a standard of perfection which his lofty intellect only could conceive.

The learned Professor began his observations by experimenting upon himself & soon found his fondest anticipations realized. He ~~discovered~~ soon made the great & important discovery. that a disease in any organ can be cured by exciting in that same organ another disease of a similar Kind but it must always be more intense - the stronger enemy will expel by force the weaker & both will disappear - This seemed to him the acme of his hopes he exclaimed, Eureka! I have discovered the only true system of medicine - it was reserved for me to find the Key that would unlock the hidden treasures of this Science. I have obtained immortality a nation shall rise up & call me blessed. Hencefoth "Similia Similibus Curantur" shall be the uplifted motto which the world shall delight to honor - Homeopathy shall be a serpent in the wilderness to which poor suffering man shall look & be healed -

A few illustrations will show the simplicity and reasona-

blenes of this doctrine "Similia similibus curantur"
this fundamental principle, and to do this the
more forcibly & clearly we will quote some of the
Prof own happy elucidations - He observes - Why does
Capitol disappear in the morning light? Because it's light
is lost in the more powerful beams of the Sun - How
do we stifle any disagreeable odour? By inhaling a more
offensive one - How can we drown any noise? By making
a greater - But as far as regards Medicine. this
important truth may be still more prominently & forcibly
set forth in some of Hahneman's professional proofs -
adduced by himself. In Sham. Fever may be cured by generous
wines - Drowsiness by Opium - Cholera Morbus by drastic
purgatives - In sweating sickness administer sudorifics -
Cool by immersion in the warm bath - Cure dyspepsia
by a good dinner - cure a cold by taking a greater. &c
These are a few of his own illustrations, and we think
that all should be convinced of a truth so irresistible.

Another discovery of great importance was
regarding the virtues of certain stones as quartz, silex,
flint, &c. These substances, which are known to be
perfectly inert. had by homeopathic pharmacy, magic

presto change etc. wrought in them the most astonishing changes; and, by being reduced to infinitesimal portions, have imparted to them the most potent efficacy. for instance, the ten millionth of a gr of either of these substances is often too powerful. One roll of old fashioned brimstone would suffice for ages yet to come. —

The dose constitutes another very important consideration in Homeopathy. This must be administered, in quantity the ten millionth, twenty millionth or forty do. part of a gr, mixed & triturated a certain number of minutes & if a fluid that bottle must be shaken precisely so many times. And these doses infinitesimal as they are, are often too powerful to be administered oftener than once in 4 or 5 weeks. The forty millionth part of a grain of Charcoal once forever five weeks!! But to cap the climax, it is asserted by Hahneman that a little spice preserved in a bottle if smelt of occasionally will prevent the recurrence of a disease ——— Such facts speak for themselves.

Again nine tenths of all diseases result from the itch — surely a compliment to human nature —

Yet will such assertions be swallowed, and men

seem almost obliged to believe them.

I have thus attempted to lay before you a few of the leading doctrines of Homeopathy. They are short & imperfect, but will suffice to turn the mind to this sublime humbug. It is hardly possible to conceive how any man endowed with even the half of the ordinary allotment of sense can see & believe such nonsense as it sets forth. Yet have we seen men of a higher order of intellect eagerly seize them & promulgate them throughout the world. We would not condemn all the devotees of Homeopathy, for we believe many are sincere in their professions, but we know that multitudes are influenced only by motives of dishonesty hypocrisy, love of wealth or distinction for a season.

What are the prospects of this humbug? Facts show that its downfall is approaching. Judging from past observation, we might safely affirm that soon it will die — Did man only use the same judgment & discretion in regards to this as to other matters, we might confidently assert that Homeopathy & its illustrious father would soon sleep side by side.

Wm. H. Dunkle

V.

Dissertation
on
Yellow Fever.

By
Joseph Bailey Elliott,
of Sharon,
Candidate for a License.

Yellow Fever,

This disease has been the theme of great and almost constant controversy, and as to the cause of which, there has been and still is much difference of opinion among Physicians and Medical Authors. It raged with considerable volume in the City of Philadelphia in the year 1793 or rather in the Summer and autumn of that year.

At this time the attention of Physicians was of course particularly called to its character and many observations taken at that time were published soon after its subsidence. From a perusal of some of these writings & particularly those of the celebrated Dr. Benjamin Rush, it would seem that the disease was then conceded to be contagious although its first exciting cause was traced to the holds of some filthy Ship in which articles of

damaged coffee and other substances in their vicinity in a state of putrefaction exhaled those noxious vapors. In later times however and at the present day when scarcely a summer passes without the disease appearing in some part of our country and particularly in the southern climates, the evidence of those who treat this disease seems to go strongly against the opinion that it is contagious, and this from the fact that its cause can be traced to known natural causes of disease and such as tend to the development of fevers the symptoms of which though not so severe are nearly allied to those of the disease in question. I refer to the Billious & intermittent fevers which are so common in the more northern latitudes of our country.

These diseases it is well known are chiefly confined to certain localities which are generally situated in the low & marshy grounds & the new & thinly settled portions of our western States. When from the decay of large quantities of vegetable matter and from extensive low marshy grounds

there is given off and mixing thereon effluvia impregnating the atmosphere with a deleterious agent to which is given the name of miasm

It is also noticed that certain conditions of the atmosphere are favorable to the more rapid production and development of this miasmatic effluvia, and hence we may reconcile the more general prevalence of these diseases in one season than in another. The circumstances which are found the most favorable to the development of these diseases are long continued heat and dryness. These remarks I think apply equally well to the disease of which I am speaking only with this exception viz. That yellow fever requires not to support a greater degree of heat. In fact we know that this disease cannot or at least has not existed under a low degree of heat. It is always checked in its course by the appearance of cold, observation seems to limit its existence to a degree of heat above 80 deg. Farenheit and if we should admit it to be dependant on contagion then would there be certainly one exception to the

general laws of contagion (viz) that it is susceptible to freezing and thawing. Suffice it however to say that this disease is dependant on a high temperature and in connection with this there are no doubt many subservient causes, as first the causes already mentioned, that of Miasmata which is more powerfully developed in particular locations, No doubt also that a particular state of the bodily and mental functions are favorable to attacks of this disease though to Enumerate every such particular state would be too tedious for me at this time to ~~[illegible]~~ mention.

A debilitated or depraved system from whatever cause we should naturally & rightly presume would be more liable to attacks, The mind also has undoubtedly a great influence in predisposing the system to this disease as well as in many other diseases which like this are so seven in their operation

Fear & Grief as well as the depressing passions generally are well known predisposing causes in diseases of this nature, but I will not swerve from my subject by stopping to speak of the manner in

which these depressing passions operate, that would belong to another subject. Exposure to the damp & chilly night air is also said to bring on an attack, but without stopping longer to speak of the causes of this disease I will proceed to mention some of the most prominent Symptoms attending this fever & then pass on to the treatment without stopping by the way to particularize.

Symptoms. In their violence & duration ~~and character~~ they differ much in different cases. The native & acclimated inhabitants in the localities of this disease are less liable to its attack nor are they so severely attacked as those who are unaccustomed to the influence of such localities.

The disease usually shows itself at first by severe pain in the head & stomach, also giddiness with sensation of faintness - lowness of spirits, gastric sinking & irritability of stomach, dullness of the eye. There is a disposition to sweat nights, defect of appetite, perverted taste, also creeping chills with nausea & pain in the back & neck. These symptoms continuing for a time say 8 or 10 hours

attend reaction begins to come on, at this time the Skin becomes hot with flushed face and redness of the Eyes and intolerance of light, often a time vomiting comes on which is frequently so severe as that nothing can be retained on the Stomach. When the Stomach is evacuated of its first contents, the continuation of vomiting throws off bile in great abundance which varies in colour from pale yellow to dark green & is sometimes of an acid character, Thirst is usually urgent but the Stomach will not retain liquids The tongue is coated at first with a white fur which gradually changes to a brown and perhaps to a black colour in the latter Stages of the disease. The Skin and conjunctiva also assume a yellowish hue during this Stage, the pulse is full Strong and frequent indicating Strong arterial action, The heat & tenderness of the Epigastrium continue to increase. This Stage may last from 36 to 72 hours after which there is generally an abatement of all the symptoms. So complete is this remission in some cases that the patient

Supposes himself out of all danger, This calm however is only the precursor of a more violent Storm ahead which is soon to break forth with increasing violence, After a short time the irritation of the Stomach seems to be increased & the symptoms become more severe. Vomiting is more frequent and ~~Severe~~ distressing the fluid brought up containing minute flocculi resembling the crust washed from Port Wine Bottles while there is little or no bilious matter, This continuing there is ~~frequently~~ finally thrown off a glairy fluid containing a substance resembling coffee grounds, The pulse in this Stage is small Slow & feeble, the Extremities become clammy & cold, a diarrhoea frequently occurs discharges being green or black and as a sequel to the whole hemorrhages set in with violent delirium, Coma, insensibility or convulsions which sooner or later end with the life of the patient, This is but a brief account of the Symptoms which attend the more severe forms of this disease and of course will not apply to

many cases, though the symptoms in milder cases
I imagine vary more because they are less severe
than they differ in form. The symptoms are divided
into 3 stages very properly and with the exception
of a few modifying circumstances depending on a
peculiarity of constitution & the habits of life in each
particular case they do not differ essentially in
their character. Often in the forming stage the stage
of reaction & collapse than the exhaustion and con-
sequent sinking of the powers of life in proportion to the
severity of symptoms. Long continued irritation
of the stomach renders the prognosis very unfa-
vorable tending as it does to an Erythmatic inf-
amation of the coats of that organ.

Post mortem Examinations have shown the
liver and stomach to be the principal seats of
this disease exhibiting as they do strongly marked
previous inflamation

Of the Treatment

In the treatment of Yellow Fever there seems
to have been much conflict of Opinion, While
some are for prompt & energetic treatment others

~~others~~ are the advocates of mild & the most soothing kind of remedies. Judging from the history of this disease and its symptoms I can not for my own part see the propriety of tampering with it by the use of what are called mild medicines.

To overcome a disease so violent & rapid in its progress as is yellow fever, appears to me to require the use of powerful agents until the violence of the disease is subdued after that or in connection with them I see no reason why they may ~~be~~ not be used, as auxilliaries with benefit. The disease however may be mild in its form & such as would require no very prompt treatment. This of course is for the Physician to judge, for there are exceptions to all general rules. Symptoms and not the name of the disease will govern the actions of every true Physician.

In the commencement of this disease general treatment is to be used, Excitement should be Equalized and a tendency to particular determinations carefully watched and prevented by appropriate means. It is an object as soon as possible to overcome the disease action, and

this may have to strong an hold as to use
use means prompt and Energetic in order to
produce this effect. Venesection and the
use of active cathartics are powerful means
are drawing agents, and are indicated by
a phlogistic state of the system, when there is a
tendency to congestion inflamation of any important
organ. All medicines should be given in a
form to operate in as speedy & effectual manner
as possible. Temperature should be equalized
by by application of warm water to cold parts
cold water to hot parts. If the feet are cold
& a tendency to the head plunge the feet into a
warm bath & apply ice or cold applications
of some kind to the head. Local tendencies must
be obviated. Counter Irritants must be used
Extremities must be indispensible in the
treatment & it is an object to see that they are
of good strength & applied in a proper man
ner. For this purpose such articles as Mustard
Horse Radish, aqua ammonia. Spt. Turpen
tine may be used. In cases where there

in torpor of the System Stimulants should be used, warm drinks ag ammn &c may be given internally to Stimulate the mucous membrane

The best purgatives are said to be Calomel and Jalap, in the first Stage. The Saline cathartics may be used as auxillaries in the treatment, Calomel Seems to be one of the most useful remedies and should be given in some form, It may be administered with Opium when there is pain and irritation of the Stomach, bowels

No less effects are said to follow the Subduing of arterial action, when it will act with more marked benefit on the Constitution

Calomel with Tartarized Antimony in nauseating doses given in the commencement of the disease has sometimes cured.

Effervescing drinks, such as contain Carbonic acid, as Lemon juice with Carb Ammonia Spirits Mindereri &c are useful to allay vomiting when it arises from irritation, and at the Same time we may apply counter irritants

Hemorhage unless profuse is a favorable Symptom

If profuse they should be allayed, whether from nose or bowels. To effect this the acetate Plumbi may be used, Emetics are but little used and as a general thing are injurious, tending as they must to increase irritation & widen consequent inflammation, Tonics and Stimulants may be given during the Sinking Stage when the pulse & temperature sinks, at the head of these stands quinine which should be given in as large and frequent doses as the stomach will bear, Tonics Stimulants & nervines are the chief reliances in the latter stages, The articles mostly used are Bark, wine, & Ammonia, These few outlines in the history and treatment of this disease in part from Books, memory and observation but chiefly from the leading notes taken on this disease during the lectures of our worthy & time honored professor, to whom I have had the pleasure of listening in his lectures on the theory & practice of physic & whom in common with the other Professors in this institution I shall ever respectfully & gratefully remember, during

My journey through life, My highest aim cannot reach beyond the honor and attainments which so worthily shine forth in them, I could wish it might be my lot to sit another term under their instructions that I might have the pleasure of obtaining at their institution my diploma of M.D. Then may be my happiness, but if not methinks it will not be for want of Exertion on my own part in attaining to it, With these few remarks I submit this my thesis together with myself to the criticism of your examination hoping that neither will fail of meeting your wishes & expectations,

XI.

Dissertation
on
Spontaneous Hemorrhage.

By
Jeremiah King,
Of Lebanon,
Candidate for the Degree of Doctor in Medicine.

Spontaneous Hemorrhage

The subject which I propose to deliberate, is one of vast importance to the Physician. It is a subject which should excite deep interest in our minds, and we should not rest satisfied merely to know that there is such a disease, but should endeavor to prove by careful examination, the true nature and cause of it. It is obvious to all that blood is essential for life, and that deprivation of a certain quantity of it produces death; and when called to the bedside of a patient who is pale, and almost lifeless; who is every moment losing that which is essential for the preservation of his life, it proves us to look speedily into his condition and render our assistance, and to do so, we must examine into the causes, situation, and the different phenomena of the disease, that we may the more effectually apply the remedies for its cure. It is a disease concerning the origin of which, there has been, and

still exists some difference of opinion

According to the derivation of the term Hemorrhage, it would embrace every effusion of blood in whatever way induced, but by Spontaneous Hemorrhage we mean a disordered state of the vital properties to a greater or less extent of the capillary system, appearing by sanguineous effusion, or extravasation. It is, however, a matter of conjecture as to the manner, or through what openings the blood is suffered to escape from its proper vessels.

It is thought by some, that the blood is discharged through the exhalents, and by some that it flows through the coats of the vascular extremities on account of the deficient vital power in those structures, while others take it for granted, that a rupture of a vessel takes place, or, at least, in most cases the rupture of small arteries.

If we examine into the seat of Hemorrhage, we find that it varies in some degree according to the different periods of life, and this is inferred mostly by variations in the state of the vascular system in the different ages of the body. During childhood Hem-

[illegible] occurs in the nose. from puberty to thirty years of age in the lungs — in middle life in the rectum, and in old age in the kidneys and bowels. These hemorrhages make a very interesting class of diseases especially those that have their seat in the lungs, as they are so often the precursors of confirmed Phthisis.

The doctrine as to the nature of Spontaneous Hemorrhage, which was first fully stated and advocated by Bichat, has, of late years excited much attention, and is fast gaining ground in the Medical world. The opinion of this Author, is, that in spontaneous Hemorrhage, the blood is poured forth from the mouths of the exhalents, not occasionally, but in all cases. There have been other opinions advanced, however, that hemorrhage is a real transudation, but they have few advocates and the great question seems to be, whether the blood is discharged by rupture, or exhalation.

The testimony of Bichat on this point from his extensive means of observation is very valuable. He says, "I have very often opened subjects that have died during hemorrhage. I have had occasion to examine with this view the bronchial, gastric,

intestinal, and uterine surfaces. I have never seen the least mark of erosion notwithstanding the precaution of carefully washing the surfaces, of letting them macerate and even examining them with a glass". He says the same also of hemorrhages from the serous membranes. Dr Parry remarks "that in vomitings of blood of different shades of redness or blackness, when the stomach is not ulcerated, dissection rarely shows any rupture of vessels, but frequently a great number of vessels in the villous coat are preternaturally distended with blood, which sometimes seems extravasated in patches in the substance of that coat itself". After Bichats observations were made, other French Physicians attended with much care to this subject, and came to similar conclusions, according to them when the blood flows from free surfaces as the mucous, and serous membranes, dissection shows nothing but a redness more or less distinct. Pinel states that in Hematemesis we often find no trace of the existence of hemorrhage, at other times the mucous membrane is of a dark color and very rarely torn or ruptured.

Dr Jackson relates a case of intestinal Hem-

purchase, in the New-England Medical Journal, of 1814. The patient had an obstinate diarrhea, which was treated by opiates, antacids, astringents, and tonics, with warm bathing and friction. The disease was not conquered, but in a measure controlled; at length the patient was attacked with the most alarming symptoms. He had three stools, about two pints in the whole almost entirely of blood. He died 36 hours after the first of these discharges, but, before death, he had a large alvine discharge with very little blood. The appearances noticed on the examination of the body were these. The omentum was red, but without effusion— the small intestines had a light red color, apparently from fullness of the vessels under the peritoneal coat— on cutting open the alimentary canal, the contents were found to be natural. A slight discoloration, in some places of a darkened hue, in others purple, was seen in a part of the stomach and duodenum, and more slightly in many parts of the small intestines— in the last part of the ileum, in the valve of the colon, and in the first and last part of the colon— In the termination of the ileum and the valve, the mucous membrane was thickened, rough, and covered with adhesive mucus— in the large

intestines there were many small ulcerations, and in some parts particularly the rectum, small white points, looking like very minute pimples— for the most part the mucous membrane though discolored, was rather unusually smooth and polished, having the appearance of almost preternatural cleanliness. There was no trace of rupture to be found, and it was inferred that the blood came from the exhalents of the large intestines.

These results are from the experience of accurate observers, and they justify the conclusion that the blood in Spontaneous Hemorrhage does not flow from a ruptured vessel, at least in a great majority of cases.

Were we to believe hemorrhage to arise in consequence of rupture, the quantity of blood which is sometimes suddenly effused would make it necessary to suppose either that a large vessel, or that a large number of small ones were ruptured. If a large vessel is ruptured, we ought, as Bichat observes "to discover it upon the dissection of those who die of hemorrhage", and besides, this disease exists frequently in those mucous membranes which have no large vessels. How shall we account for the blood being arrested by bleeding, astrin-

gents, and other remedies taken internally, which have no effect upon the orifices of vessels wounded in any other way, if the blood be poured forth from a large vessel.

If we return to the other explanation, that the small vessels are ruptured. I think we shall not find this any more satisfactory because the rupture of course must be produced by some internal cause. and the congestion of blood in the vessels, is usually supposed to be this cause. In order that this congestion should rupture the coats of the small vessels, it ought to be formed and supported by the diastase of the large. But I believe it is not thought probable that the large vessels can produce a congestion in any part, unless an affection of the small vessels themselves exists at the same time. The increased action of the large vessels is a consequence, and not a cause of the engorgement of the small ones, and will therefore be only proportionate, to the increased quantity of blood which is demanded by them to support their altered state of action. As the congestion then is a consequence of the state of action of the vital properties of the extreme vessels themselves, it appears almost incredible to suppose that an affec-

tion of their own, should draw into them a quantity of blood sufficient to rupture their coats.

Let us now consider some of the phenomena which hemorrhage presents, that we may determine whether they are in accordance with the views presented; that a rupture of a vessel does not take place in Spontaneous Hemorrhage, and perhaps some information may be obtained respecting the actual state of the vessels that emit the blood.

The phenomena in hemorrhage and their explanation very closely resemble those of inflammation. Every sign of preceding irritation and congestion is found, as is evident from the symptoms of hemorrhage from the lungs. Indeed, there is such an analogy between the two diseases, that the first approaches of hemoptysis might easily be mistaken for those of inflammation of the lungs. Were it not for the difference in their local affection, in the circumstance of the effusion of blood, the two diseases would be nearly the same. The quantity of blood discharged in Spontaneous Hemorrhage differs at different periods. Sometimes, a large amount is coughed up at once, and at other times

a mere speck appears in the sputa, as it regards this small quantity, it is thought to flow from the rupture of a small vessel. The blood whether in a smaller, or greater amount, when poured forth must flow from the minute vessels. It is said by some, that the large amount of blood must flow from the rupture of a large vessel, in this case an ecchymosis would be produced, which, we think has been proved by the experience of extensive, and accurate observers not to be true: nor can we suppose it probable, that the blood when poured forth in large quantities is discharged from the rupture of the capillaries: for in order to occasion so large a hemorrhage this violence must be done to a great number of them at once. We should be surprised to find a simultaneous rupture of several arteries, and we think the rupture of a great number of the capillaries quite as rare an occurrence, for I can not see why nature should not as safely guard against rupture of the capillaries, as the arteries.

The phenomena, in hemorrhage of a small or great amount are essentially the same, and must not the blood flow in each case from the same source? We consider then that the blood poured out in cases of

Spontaneous Hemorrhage, is discharged from the open mouths of minute vessels by their own action, supported by the vis a tergo of the blood in the arterial system. We have noticed the fact that substances are forced into an organ, a vessel, by disease; the entrance of which it resists when the healthy operations are going on. It is not uncommon for vessels which admit only one or more of the constituents of the blood to receive the blood itself, when they are in an irritation state, as is often seen in the membrana conjunctiva of the eye. In the serous membranes the small vessels do not naturally give passage to red blood, irritate them so as to produce a certain degree of inflammation, and this fluid immediately penetrates them. May we not with equal propriety suppose that a similar change in the condition of the exhalent vessels of the mucous membranes, would permit the effusion of blood, instead of mucus. A similar comparison might be made with respect to many other phenomena of inflammation, but I would only observe, that there appears to be sufficient reasons for regarding the admission of blood into vessels which do not commonly transmit it — the secretion of pus and the effusion of coagulable lymph as circumstances of the same

kind, with the exhalation of blood from mucous membranes are depending upon a like cause, and this cause, probably consists in some increase or alteration in the vital properties of the part affected. This is confirmed in some measure by a symptom which has often been observed to precede hemorrhage. There is often an effusion of a serous or mucous fluid in unusual quantity before the discharge of blood takes place, and this seems to denote that a general change is taking place in the condition of the vessels from their ordinary degree of vital power to that which enables them to discharge blood. This circumstance I have observed in Epistaxis in my own case, and it has also been remarked in Hemoptysis.

The remote causes of hemorrhage and inflammation are in most respects the same. They observe the same changes in regard to the place of their appearence in different periods of life. The crisis of fevers is sometimes promoted by inflammation, though not so often as by hemorrhage. Dissection also shows similar traces of disease in both cases. Other points of resemblence might be noticed quite as momentous as these already mentioned. Symptoms of irritation and increased

determination of blood such as usher in inflammation, are the precursors of hemorrhage when they appear. Often there is ground for doubt whether hemorrhage, or inflammation will take place, the symptoms so nearly resemble each other, for instance, a patient has chills, flushing, excited pulse, sensation of heat for the most part in the course of the trachea, oppression in the chest, cough with difficulty of breathing &c, all showing a state of which at length may be termed with either, or both these diseases.

The remedies employed are also those which oppose inflammation, as bleeding, blisters, counterirritation, and the various articles of the Materia Medica which are of an antiphlogistic character.

The inference which would naturally be drawn from the similarity which hemorrhage has in so many points to inflammation is this. As inflammation is a disordered action of the capillaries principally, so also it is almost equally evident that in Spontaneous Hemorrhage these same vessels pour out the blood by their own action. If we were to suppose that a rupture taking place from weakness in the coats of the vessels, and the discharge of the blood to be the whole difficulty in hemorrhage, the sys-

stem would not become so excited as it often is in cases of hemorrhage, and essential relief would always be obtained by the flow of blood. The obvious derangement of the system generally is promoted by a state of irritation & diseased action, and complete relief can be obtained only by subduing this action and restoring the healthy operations of the part affected

Were we to examine particular cases, we might very clearly observe the analogy between inflammation and hemorrhage and their frequent connexions, and we might also see clearly the consistency of the phenomena with the doctrine of Sanguineous exhalation.

Take the case of a patient who died at the Mass. General Hospital of inflammation of the lungs, which came on after he had become convalescent of quotidian intermittent. The lungs upon examination after death were found in an inflamed state. There was an unusually red appearance in the pleura and substance of the lungs, and the surfaces of the organ when cut, had a granulated appearance from effusion of coagulable lymph. There was rather more of a red appearance to the mucous membrane than in health, and the bronchia every where

containing some of the frothy reddish fluid, which he continually expectorated the last day of his life. In this case of inflammation with hemorrhage, the blood must have come from the exhalents of the mucous membrane for the frothy fluid expectorated was uniformly tinged with it making an intricate mixture which could not have taken place merely from the agitation given it by coughing it up. In cases of tuberculous phthisis accompanied with hemorrhage we were to trace its history from its first appearance to its termination in death, we should find these truths illustrated more fully. The lungs manifest occasionally some tendency to disease, after a while from some circumstance they are more than usually irritated, and then there appears a sense of weight in the chest, a constant short cough, quickened pulse &c. Blood is spit up from time to time till finally suppuration occurs with hectic fever, pus is expectorated in large quantity, and death shortly takes place. In such cases the tuberculous disease remains quiescent until some accidental cause induces a state of irritation, then those symptoms which usher in hemorrhage & inflammation appear; blood is coughed up to a

greater or less extent. The common antiphlogistic remedies relieve but do not remove the symptoms of irritation, and the disease advances with a sure step. In this case hemorrhage is not the disease we are to contend with, but only one of the symptoms of that disease indicating irritation and undue determination of blood.

It appears evident from the facts we have been considering, the process of softening of the tubercles, the inflammation and the hemorrhage are actions resulting together from irritation. We observe a slight spitting of blood for a long time, would we suppose it probable that there were a succession of ruptures in the small vessels? or that the blood comes for this length of time from the same rupture? After a considerable hemorrhage a little blood for a time continually appears in the sputa - does it seem probable that this arises from rupture either? We find that the hemorrhage is most abundant when it has occurred frequently before, and how shall we account for this, unless it is on account of the hemorrhagic tendency acquired by the patients from a repetition of the action.

We might consider hemorrhage arising from

other organs in the same way as hemorrhage from the lungs has been, and the symptoms, the influence of remedies, and other attendant circumstances of different cases would be found to be consistent with the idea of sanguineous exhalation.

We often find hemorrhage occurring from a healthy organ sympathetically, that is from the influence of disease in other organs. This results commonly from the suppression of some natural evacuation, or an acquired one which has become habitual. We often find that when the catamenia are suppressed, the blood flows from the lungs, and there is not the least shadow of reason to suppose that the blood flows from a ruptured vessel, or the lungs previously to this hemorrhage appear to be in a perfectly healthy state, and after the discharge of the blood they often return almost immediately to their regular state, and they do not become the seat of permanent disease till after suffering the attack repeatedly, and sometimes after hemorrhage has occurred for a length of time in the lungs, it will leave those organs and appear in some other part of the body. If the blood flowed from rupture, it is clear that there would be no such transfer of disease from one organ to another as sometimes

occurs and leave the organ in a healthy state.

M Sisfranc reported to the royal academy of medicine the case of a woman who had discharged blood from the bladder on two occasions at the menstrual period, as the vagina was completely closed by adhesions.

In another case reported from the London Medical Gazette of a female aged 16. who was attacked towards the latter end of the year 1826 with a severe fever from cold, and a slight spitting of blood. In two months the catarrh continued, but had entirely ceased; when at the period when the menses should have appeared, she discharged blood from the lungs in a considerable quantity, frothy bright colored and almost pure. The menses did not appear, consequently the spitting of blood continued during the time they ought to have flowed. After this she recovered, and on the following month the menses appeared regularly, but on the return of the next period they were again suppressed and a continued hemoptysis appeared as at first. The month after, the catamenia flowed, but did not again appear for four months, during which time the hemoptysis has come on regularly every day, at the same, or nearly the same hour, in the same quantity, and

of the same kind. The blood is stated to be apparently arterial and scarcely mixed with mucus.

From these cases and many others which might be mentioned, it appears evident that a rupture of a vessel does not take place.

It appears from observation also that there exists a constitutional predisposition to hemorrhagic discharge in some cases. That is, some are indisposed to spontaneous hemorrhage, while in others this discharge is quite common, while in other respects they may be vigorous and healthy. Sometimes even the slightest wound of the skin will cause the most alarming hemorrhage where this hemorrhagic predisposition exists, and it is often difficult to arrest it even by our most energetic means. Cases are on record where this predisposition has appeared in a remarkable manner in families, many of them in successive generations dying from hemorrhage often arising from the slightest scratch upon the skin. A case is reported by M. Dispranc of a man who was subject to spontaneous hemorrhage from the gums and nasal fosse, every spring and autumn by which he was reduced almost to prostration. This man had seven brothers all of whom had

dies from the same affection, and one of his uncles dies from hemorrhage resulting from the extraction of a tooth. This man for some time was apparently at the verge of death but by the action of Styptics he recovered.

Causes of Spontaneous Hemorrhage.

The exciting causes of spontaneous hemorrhage we find to be those causes which are capable of producing more than local determination to soft and vascular structures. — Among the list of causes we would mention those that are calculated to invigorate or quicken the circulation, or direct its force to any one part or organ of the system, as External heat, which acts as a stimulant accelerating the circulation, and also relaxes the integuments that support the vessels. Cold when applied as when it gives a shock to the circulation sometimes produces hemorrhage. — Diminution in the density of the atmosphere. This we observe in the ascent of lofty mountains. De Saussure who ascended to the top of Mount Blanc states that among the effects which he experienced from the rare atmosphere was, that the blood gushed from his nose, ears, and gums. Baron Humboldt and

his companions experienced similar effects when ascending the Andes.

Hemorrhage is often produced by violent exertion as running, leaping, fighting, raising heavy weights, stimulating ingesta, vehement gusts of passion, bending position of the head and body, ligatures, hindering the regular return of blood. tumors pressing upon large veinous trunks, also exertions, that more than in an ordinary degree agitate particular organs, as vehement laughing, over exercise from long continued speaking, boisterous singing, playing upon wind instruments, also, it may be produced by substances which produce irritation to particular organs, as Cantharides, and turpentine, acting on kidnies. Stimulating inhalations irritating the respiratory organs.

Treatment of Spontaneous Hemorrhage.

We often find hemorrhage occurring when it should not be suddenly checked such as those that occur during the stage of excitement in fevers unless they become copious and debilitating. Hemorrhage occurring from sympathetic action with the uterus, that is when the

catamenia are suspended and the flow of blood appears in another organ should not be suddenly checked, but such remedies given, and such means employed, as will restore it's healthy action and induce the flow of blood to its natural place.

The general indications in the treatment of hemorrhage which we are to observe are the following.

If the momentum of the circulation be above its natural standard diminish it by bloodletting.

We are also to subdue the force of the vascular action, and to do this we employ refrigerants which may be either external, or internal, as cold applications, Nitre &c.

We are to endeavor to produce contraction of the mouths of the vessels, for this purpose we make use of astringents, as some of the preperations of Lead, Copper, Zinc & Iron, besides several of the vegetable acids.

Styptics applied to the vessels when the situation of the part will admit of it.

Another principle in the cure of Hemorrhage is to cause a turning in the circulating fluids from the affected part to one less interesting, and for this purpose we use sinapisms or blisters to the extremeties, stimulating

pediluvia; leeching or cupping as nearly as possible to the seat of mischief. It should be our endeavor to remove the causes which dispose to hemorrhage in order to prevent its recurrence.

In the management of Hemorrhage I think there is too little importance attached to the habits of the patient after the cessation of the Hemorrhage. If the flow of blood is copious there is apt to exist great alarm both with the individual and friends, and often the Physician is not entirely free from it. Every means are tried to check it, and when done the anxiety is apt to subside and the patient continues on in his former habits till he is again aroused by a repetition of an attack, and continues on in this course till the disease becomes permanently fixed. The flow of blood if excessive should not only be checked, but the habits of the patient should be attended to, his diet should be of that kind which is least calculated to increase the quantity of blood in the vessels or excite their movements; his course of life should be such as to avoid if possible every cause that produces it that a return of the disease may not take place. The correction of the morbid condition which gives rise to the

disease, which when neglected leads to fatal consequences should also be attended to.

Narcotics have been recommended by some, and especially Opium. Acetate of Lead. Opium and Ipecac is a good combination. Ipecac alone has been greatly extolled by some for its beneficial effects in arresting hemorrhage.

Emetics, do seem to have a controlling influence over the state of the capillaries, changing the condition which admits of sanguineous exhalation, and the nausea arising from the emetic often represses the circulation. We know that emetics cause a revolutionary power, and when occasionally operated they will prove advantageous in breaking up those habits and associations which maintain the predisposition, and in the removal of the disease by which hemorrhage is supported.

Let us consider a few examples which will show the efficacy of the practice which has been suggested. Take a case related by Osborne when he began the use of ipecac as an emetic by ordering 20 grains to be taken at night, and generally directed an occasional

saline purgative in the morning. All other remedies he tried proved ineffectual, but the effect produced by the emetic far surpassed his expectations. The discharge either ceased within 24 hours, or was diminished to such a degree that other remedies were unnecessary to insure its entire removal. In a few cases it recurred within a short time, and when this happened it was only necessary to repeat the emetic once or twice that a permanent effect might be produced. He met with a few persons in whom the discharge continued with little alteration after the first Emetic, and with them he had only to repeat the remedy on the following night, and he had only one case where three Emetics were required before the desired effect was produced. He adds "it acts no less in menorrhagia accompanied with high excitement and full pulse than in a state of great exhaustion and its general operation is so mild as to prevent no obstacle to its use even in great prostration of strength."

He also speaks of a case of violent Epistaxis which had resisted several remedies, and while preperations were being made for plugging the posterior nares he tried an emetic of Ipecac, and with so much success as to render that measure unnecessary.

Chapman states a case of a young man of consumptive habits who had suffered from spitting of blood for some months and was treated by digitalis. Being suddenly attacked with an alarming effusion of blood, he took a large dose of the medicine so much so, that it caused vomiting, and from that moment the flow of blood ceased. He became convalescent and finally recovered. After a astringent, nausea happens from the operation of digitalis, and in this case it continued for several days, and probably the permanent effects were owing to this nausea.

We find emetics to be useful let the hemorrhage arise from what organ it will. Take a case of Hematemesis of a girl 18 years of age, of a leucophlegmatic temperament, while under treatment for certain dyspeptic symptoms then existing was attacked with vomiting of blood. She threw up nearly three pints of blood in less than an hour. The usual astringent remedies were tried but without avail. The exhaustion had become almost extreme, and an emetic of Ipecac was resorted to July. In the course of twenty minutes dark clotted blood in large quantity was ejected. She soon after became composed, pulse rose, the natural warmth of skin returned. The hemorrhage did not again return, and in a few weeks she completely recovered.

Emetics are useful also in hemorrhage either of the cutaneous or cellular tissue, as is shown in the following case related by Chapman. The patient was a young man who was attacked with bleeding from the gums. No assignable cause could be traced as to this hemorrhage as he was in other respects in general health. It had continued for the space of three days, during which time the quantity of blood poured out amounted to about four quarts and a half. There appeared to be no sponginess of the gums nor any other affection existing. The gums were wiped with a cloth, but the blood continued to flow as it were from innumerable pores, and in a few minutes the mouth would be again filled with blood. Remedies both general and topical were resorted to but with no success, the blood continued to flow, and finally an emetic was administered, upon the operation of which the hemorrhage ceased. It however partially returned after some time, but was again suspected by a repetition of the remedy and did not afterwards appear.

Numerous other instances might be mentioned showing the efficacy of Emetics in arresting Hemorrhage,

but I will not weary you with a recital of them.

The relief which so speedily takes place upon the operation of an emetic in hemorrhages, is in my opinion produced by the change which takes place in the action of the vessels. It is a well known cause in Physiology that when sickness exists whether from loss of blood or from any other cause, the blood coagulates much more rapidly than at any other time, and hence the open mouths of the vessels may be more rapidly closed by coagulum.

Jeremiah King

VI.

Dissertation on **Iodine**, By Thomas Augden Hills, of Glastenbury.
Candidate for the Degree of Doctor in Medicine.

Iodine is an elementary non-metalic body, possessing many of the properties of Chlorine. It is one of the most remarkable substances in nature. It was discovered in 1812 by Mr. Courtois a Soda manufacturer of Paris. It is called iodine from its violet colored vapor, which is from the greek ιωδης which signifies violet color. A few years after most or all of its chemical properties were discribed which are now known. Its therapeutic powers were also tried and these having been found valuable, it gradually came into general use, so that at the present time it is recognized as a standard remedy of much power and used to great extent. Iodine exists in all of the marine vegitables, or sea weeds, in this vicinity excepting the Zostera marina, or eel grass, and particularly in the Fuci, or common sea weeds. In the animal kingdom, it is found in the oyster, various polypi, and in cods liver oil. The Mineral kingdom also contains it in small quantities, but in the silver ore of Mexico, it is found as high as 15 per cent. Sea water contains it in small quantities, also the

water of certain Springs. The first that it was discovered in the United States, was in the water of the Congress Spring at Saratoga by Dr. Wm. Tucker. Dr. J. H. Steel ascertained it to be in a state of iodide of Sodium, and probably exists in the same form or state, in the sea-weed. The Congress water contains three or four grains to the wine gallon. Iodine is manufactured in England and France in large quantities, from sea weeds, also in the western isles and shores of Scotland and Ireland. The product is called kelp, it is a fused semitransparent mass, which contains about a 225th part of iodine, which on being lixiviated in water about one half is dissolved, when farther process fits it for use.

Properties. Iodine is a soft friable opaque substance in the form of crystaline scales of a bluish black color, and metalic lustre, resembling plumbago. Sometimes the crystals are very large and brilliant. It has a hot acrid taste, and a disagreeable oder resembling Chlorine. Its specific gravity is 4, 948; it is a volatile substance and evaporates at common temperatures if it is in a moist state.

on the application of heat, it evaporates more rapidly - It fuses at 225 degrees, is volatilized at 347 degrees, the vapor having an exceedingly beautiful violet color. Its specific gravity is 8.716 being the heaviest aeriform substance known. Its atomic weight is about 126 atomic volume 1. The vapor is irrespirable, suffocating instantly, and when inhaled with air, it excites coughing, and irritation of the schneiderian membrane. It requires 7 or 8 times its weight of water to dissolve it. In Alcohol and ether it is much more solvable - The aqueous solution is tasteless, but has a feble odor and brownish color. It is rendered much more solvable in water by the addition of a little chloride of sodium, Muriate of ammonia, or iodide of potassium. In chemical habitudes, it resembles chlorine, but its affinity is much weaker.

Iodine unites with most of the metalic and non-metalic bodies, forming either Salts acids or iodides, several of which are officinal. With oxygen it forms three acids viz the iodous, iodic, and hyperiodic, and with hydrogen one acid, the hydriodic, which unites -

with potassa, forming hydriodate of potassa, but the haloidal salt which bears that name is not a hydriodate of potassa but an iodide of potassium.

One of the most characteristic properties of iodine, is the production of a splendid blue color, with a solution of starch; so delicate is this test that it said to receive a blue tinge from $\frac{1}{50,000}$ part of its weight of iodine. The solution must be cold, and the iodine in a free state, which may be done, if it is combined, by adding a small quantity of chlorine water or a few drops of sulphuric acid.— Iodine is sometimes adulterated with mineral coal, charcoal, plumbago &c, but on analysis it has not been found, only in small quantities. These impurities may be detected by dissolving iodine in alcohol, as in this it is perfectly soluble and evaporating the solution. If any thing remains either undissolved or unevaporated it is an adulteration. It contains also more or less water, sometimes as high as 15 or 20, per cent. This is of consequence as it interferes with the uniformity of its preparations.— When it is considerable, the iodine will adhere to the inside of the vessel which contains it.———

In the Edenburgh Pharmacopia, we find a test to detect all impurities of this kind above two per cent which is, a certain quantity of quick lime, with pure iodine diffused in water, forms a clear solution. In consequence of the almost uniform presence of water, in iodine, the Edenburgh College recommends the drying of it, in a shallow basen of earthen ware, in a small confined space of of air, with ten or twelve times its weight of fresh burnt lime, until it cleaves off, almost entirely from the vessel.

The special actions of iodine on the system are varied by its degree of concentration, State of the constitution &c. hence it is deemed capable of acting as a corrosive poison, irritant, desicant, tonic, diaphoretic, diuretic and emmenagogue. ——

The two most remarkable effects which have been produced by iodine are the absorption of the mamma and wasting away of the testicle, these effects however I believe are not very common. The mamma sometimes recovers itself and sometimes does not. ——

A disordered condition of the cerebro-spinal system has in several instances been caused by iodine,

also a specific effect on the skin besides the diseases which it occasions, which may be owing to its indiscriminate use.

Iodine acts by being absorbed when employed either internally or externally. This is proved by its being detected not only in the blood but in the secretions, as urine, milk Saliva &c.——

It exists in a state of iodide & hydriodic acid.

Its tonic effects are evinced by its strengthening the digestive organs, and increasing the appetite which are the most constant effects of its use.—

As a remedial agent it has been principally used for its resolvent influence, in chronic, visceral and glandular enlargements, indurations, thickenings of membranes of the periosteum & in tumors

Its therapeutical applications are widely different from those of mercury, the later being applicable in certain states of the systems, the former not. Iodine being especially adapted for scrofulus, mercury for syphilitic maladies & states of the system

Iodine effects the secretions less than mercury, and also certain glands, which mercury does not.

When given in large doses, five or six grs, it produces a sense of constriction in the throat, sickness and pain at the stomach, at length vomiting. When given in medicinal doses, if they are rather large, it sometimes produces unpleasant symptoms and even dangerous ones — such as a sense of burning in the esophagus, restlessness, palpitation, excessive thirst, violent cramps, acute pain in the stomach, rapid and esctreme emaciation and frequent pul

This state of the system is called iodism.

These symptoms do not always follow the generous use of iodine, but the fact that it produces such a state of the system, show the necessity of caution in its exhibition, notwithstanding the assertion of some to the contrary, who have given it in large quantities and seen no ill effects arise therefrom, which cause may have been from the food being of the amylaceous kind; in which case a considerable portion of the iodine would have been converted into an iodide of starch, which is a very mild preparation. Upon the appearance of any of the symptoms, above mentioned, as indicating

iodism, which shows us that the remedy is being carried to far, it should be discontinued & the dose diminished—

The Offinal preperation are numerous. The following are some of the more important

lides Iodide of Ammonia,—this preperation made into an ointment with land, is useful in some cutaneous affections.

of rsnic Iodide of Arsnic.— this has been used as an external application, to erroding tubercula skin diseases. and also given internally in cutane- -ous effections, and where there is a cancerous di- -athasis. Dose ⅛ g: three times per day ——

! Arsnic mercury Donovans Solution, which is a solution of the iodide of arsnic and mercury—

' Iron Iodide of iron, and a Solution and Syrup of the same— This possess the powers of a tonic and debbstruent.

Lead Iodide of lead, this has been found to be of but- little value. Prof. B., however has used it in Phthisis and thinks well of it. ——————

of— — * Protiodide, a the red iodide of mercury— is analagis to the Chloride of Mercury, a corrosive Sublimate.

* The Biniodide of the U. S. Dispensatory—

of —— *Diiodide or green iodide of mercury — is milder then the red iodide of mercury, and may be given similar to Calomel. ——

Potassium Iodide of Potassium, or a solution of this is the form in which iodine is generally given —

Sulphur Iodide of Sulphur, this is an excelent application, for cutaneous effections in which iodine is called for —

Zinc Iodide of Zinc is a deobstruent, tonic astringent — in solution is useful in gonorrheal and the like discharges, as an injection. —

Doubl Iodide Iodo Hydrargyrate of Potassium, is a valuable remedy in hepatic and cutaneous disorders. —

Iodic Tinctum and several other forms of iodine are used to some extent. —

Bronchocele Iodine was first used as a medicine in the bronchocele in 1820 by Dr. Condet of Geneva, and of all the remedies yet proposed, for this disease, this has been the most successful, by some it is considered almost a sovereign remedy, but it is not a specific as all cases are not cured by it. ——

When the thyroid gland is effected, it is not always of the same nature, sometimes a hypertrophy nearly exists,

* The protiodide of the U. S. Dispensatory —

and from the gland enlarging suddenly, and as suddenly diminishing, it has been thought to be owing to an effusion of serum in its tissue, or an accumulation of blood in its vessels.——

Another state is where it is enlarged by certain fluids, or solid substances, which may be contained in its vessels or infiltrated through its substance. It is also, sometimes in a schirrous condition, or perhaps more frequently, of a gelatinous, fibrous or cartilaginous structure.——

Here it would not be expected, that iodine would cure, with a like success, these diversified states of this gland.— those having solid deposits, the most difficult. In order that iodine should cure goitre it should not be of too long standing, or tender to the touch, swelling confined to the gland, and not of a scirrus or carcinomatus nature,— no containing any stony or analagous concretions, or the general health not too much impaired— If the swelling was tense and other marks of inflammation present, antiphlogistic treatment should precede the administration of iodine.—

It may be employed, both internally and externally.- The best method of employing it externally is the endermic. As to its internal use, some think small doses largely diluted is the most useful one while others think, that as much should be given as the system can bear,- Small doses long continued would I think be the most preferable method. It may be given in tincture, or which is better in the form of an iodide, either alone or combined with the protiodide of mercury, forming the, Iodo Hydrargyrate of Potassium, which is a double iodide, one acting as an acid, the other as a base. The dose of this preperation is a 40 or 1/2 of a gr. three or four times per. day. The iodine itself, may be given in a Solution of iodide of potassium.———

Scrofula. This is a disease in which iodine has been used more extensively, probably than any other one remedy, and with unparalleled success- so that at the present time it is almost the only radical remedy depended upon. It changes action, converts the unhealthy, into healthy action, causes the parts and whole system, to assume a healthy

condition, and this by virtue of its alterative power. Its effect on the glandula system is decided, and on the abdominal viscera, & glands as well as on the lymphatic system.———————

It was used first in this disease, by the some gentlemen who used it for the cure of bronchocele.— The theatre of its action, has been the Hospital St. Louis— under the direction of Dr. Lugol. He has treated numerous cases successfully with it. other Physicians also have been alike successful in its use, though perhaps not to that esctent, which Dr. Lugol has been. The circumstances under which his patients were placed, connected with other treatment, probably, were auxillaries.———

Scrofula effections in which iodine has been used are glandula swellings, especially about the neck, Scrofulus ophthalmia, and Ozena has been treated successfully with iodine.———

Abscesses and ulcers of a scrofulus kind, and diseases of the Bones, as white swellings and hip diseases, which are generally developed in strumous constitutions. Iodine may be given internally, and used, topically.—

The best form is the iodide of potassium. ——
Dr. Lugol prefered this preperation, and iodine mixed
in a solution of distilled water. — this to be largely diluted. —
In its external use, the liver, may be applied, either as a
mild, or a more powerful irritant. by a camels hair
pencil, directly to the abscess or ulcer. — this has pro-
duced decided beneficial effects, drying up the dis-
charge and producing cicatrization. ——
Medicated Bath is highly recommended by some Physicians
—— Dr. Lugol used for this purpose, iodine, dissol-
ved in water by means of iodide of potassium, a few
grs. to the gallon, — strength pro re nata. —
The system may need some previous treatment to prepare
it for the better reception of iodine. ——
In head affections, iodine is a valuable remedy
particularly where there is a tendency to
hydrocephalus, in those children who are weak
or of a scrofulous taint, — it should be per-
severed in for a considerable time. ——
Anasarca, or dropsy of the cellular tissue, it has
been used with success, — though it has no
direct diuretic effects, yet it has been found

that dropsical swellings, have yeulded to its use. – its effects at first, are not very apparent, but by its continued use its effects are produced. Chronic diseases of organs, especially those accompanied, with induration and enlargement, iodine has been eminently successful ——

What its action a influence is, in these cases, is not so well understood, but it checks the further progress of the disease, and apparently restores if not positively, the organ to its normal condition —— It is usually given with the view of exciting action in the absorbents, – but its influence does not find limit here, it exercises a controlling and modifying effect on the circulation of the part, and is in the true sense of the word an alterative. –

By some it is thought to remove the morbid growth by starving them which it effects by contracting the capillaries of the part, but this action I think would not be sufficient, for the enlargements, which it removes are not mere hypertrophies, but a morbid structure,

of the part, is removed, which must have been caused by morbid action, now medicines which remove morbid conditions, can do so, only by restoring healthy action, that is, having an alterative effect. It is by virtue of this property, that iodine is thus efficacious in restoring parts diseased to a healthy natural condition.

Liver. In chronic inflammation of the liver, after antiphlogistic means have been resorted to, if necessary, iodine is of much service, exciting the secretions and changing action. - - - - - - -

It may be used when mercury has faild, or in connection with mercury, as the Iodo Hydrargyrate of Potassium, or the* diiodide or, prot-iodide of mercury, as may best serve the indications, the first and last of which are allied to chloride of mercury, a corrosive Sublimate, the other to the Dichloride of mercury, or calomel, which remedies, will probably effect a cure, if the disease is curable. —

Spleen. — The enlarged spleen has derived much benefit from the use of iodine. —

Uterus. Iodine has been found the most successful-

* The prot. & direct of the U. S. Dispensatory —

in chronic diseases of the uterus, accompanied with induration and enlargement.—

Case. A case is reported of a uterus of osseous hardness and so large as to nearly fill the pelvis, yet in six weeks the disease gave way and the catamenia was restored— other cases are reported in which a like success has been obtained.——

Hard tumors of the ovaries, and indurated puckerings of the os uteri; have also been cured by iodine— it should be administered internally and also used locally.— for its local use an ointment may be made of iodide of potassium 3 parts iodine 1 part. Spermaceti ointment 6 parts— of this a piece of the size of a walnut may be introduced and rubed in, or on to the effected part for a few minutes every night, either with the finger, or a piece of cane mounted with a sponge.—

Ovarian tumors, have been treated with iodine, and with beneficial results.——

Mammary tumours, of the chronic kind, iodine has alleviated the pain, and held the disease in check. also in indurated enlargements of the, parotid—

prostate, and lymphatic glands, it has been found serviciable. ——————

Its Emmenagogue powers have been thought to be considerable, by some so great as to produce miscarriage Dr. Bell thinks that it has a controll over the ute-rus, obviateing sterility. ——

In, Gleet, Gonorrhea and Leucorrhea, it has been found useful, after the inflammatory symptoms have subsided. — Amenorrhea and Dysmenorrhea have been cured by its use. —

The iodide of iron is a most valuable remedy in Chlorosis, and weak chlorotic Patients. — This preperation has the properties of both its ingredients combined. — Is appliciable in atonic states of the system, where indigestion, and debility are present. Syphilis, some forms of this, as chronic effections of the testies, the Iodo Hydrargyrate of Potassium, is a very valuable remedy. ——

In Sudo Syphilis, and cachexia, arising from the ab-use of mercury, as emaciation with ulcers of the skin throat, inflammation of the periosteum, bones &c. Lugols solution is one of the best remedies.

In checking and controlling the ulcerative process of ulcers, which threaten to destroy the part, or in those which are less severe, iodine is a most valuable remedy, causing them to yeald to its influence and assume a healthy granulating appearance.—
Inhalation of the vapor of iodine has been used in phthisis and chronic Bronchitis.—
From the irritating property of iodine, it would be applicable only when there is considerable expectoration in the advanced stage.— It acts locally changing and checking at the same time the secretions.—
The iodureted iodide of potassium, with tincture of conium is recommended for this purpose.—
Chronic diseases of the Nervous System such as palsey and chorea have been treated successfully with it.
It has been used in chronic diseases of the skin as lepra, psoriasis &c, with considerable advantage.—
In Chronic Rheumatism, the iodide of potassium is a remedy much relied upon by some, and is an efficient remedy.——
Antidote. As an antidote for the poisonous effects of Brucia, Strichnia and veratria, it has been rec-

-commended, for the reason that the compounds formed by the union of these alkalies with iodine, are less active than the alkalies themselves —

The Tincture of iodine, diluted, three or, four times is used as an injection for the cure of hydrocele. - also as a check to mercurial salivation. — — — — —

The tincture, either concentrated, or diluted, (according to the state of the part) is a valuable topical remedy and has been used successfully, in several classes of diseases. In Lupus it is highly beneficial, the ulceration is checked and cicatrization induced. —

It is an excelent application in Eczema, also in several other cutaneous diseases as, lichen, prurgo, psoriasis, scabes &c.

In Chilblanes, and diseases of the joints, it has been used with advantage, in the form of iodide of Lead, and comointment, or mixing iodine with lead*, when you soon have an iodide of lead. — this may be worn on the part. —

Erysipelas, Iodin tincture is a good remedy in erysipelas and in phlegmonous inflammation, — it should be applied a little beyond the seat of inflammation.

The application may be made with a camels hair pencil. —

Sloughing, of the cellula tissue, inflammation of the

* The common lead, [illegible]

absorbents, gout, - carbuncle, whitlow, wounds burns and scalds, have been treated with this invaluable remedy with great effect. ——
In its topicals application, it is allied to nitrate of silver, and used with similar intentions. ——
P. S. Liquor Arsenici et Hydrargyri Iodidi, or Donovans Solution, (which has been before mentioned) is one of the most valuable remedies that we possess — in lepra impetigo, rupia, psoriasis, and cutaneous diseases in general, both papula and scaly, also when there is a cancerous diathesis, a disease resembling cancer as very efficient effects have followed its use. ——
In uterine Diseases of various kinds it has been very beneficial. — — — ———
It is thought to possess the therapeutical properties of the three articles combined. ———
The dose is twenty gtts. three times per day. — in distilled water — this dose contains 1/24 gr. of arsnic or arsenious acid, - 1/12 gr. of deut-oxide of Mercury and 1/4 gr of iodine. ———

VII.

Dissertation
on
Follicular Inflammation of the Pharynx.

By
John Wesley Hubbell,
of Easton,
Candidate for the Degree of Doctor in Medicine.

Follicular inflammation of the Pharynx —

This is a disease of frequent occurrence, but in consequence of the little inconvenience which usually accompanies it, the physician is seldom consulted, & it is only the cases of a more aggravated character, which fall under his care. — Many of the cases, which go by the name of "Clergymans sore throat", are no more nor less than the disease under consideration, & it is frequently in these cases considered as a more formidable disease, than it really is. —

The symptoms which attract attention to it, are an increased secretion of mucous, — an uneasy sensation in the parts, caused by the irritation of the enlarged follicles, & their morbid secretions. — a frequent hawking & coughing, & in some instances slight hoarseness. — If the throat be examined at this time, the Pharynx will be found studded with apparent granulations, varying in size, from that of a pins head, to that of a pea. — These granulations

on the enlarged mucous follicles.— They may subsequently ulcerate, and discharge a small quantity of grey, elastic matter, tinged with blood, which may cause the patient, & unwary physician, to suspect serious pulmonary mischief.—

It seems difficult to assign the particular cause, or causes, of this disease.— It is thought by some to be in all cases, of a scrofulous character.— Of course it may arise in persons of a strumous habit;— but is not by any means confined to them.— In fact it more frequently appears in those who present no appearances of scrofula.— It makes its appearance most frequently in young persons, seldom before puberty, & rarely in advanced life.— Males are more subject to it than females.— It attacks also those of a weak, or debilitated constitution, rather than the strong & robust.— Students, & professional men, are more subject to it than other classes.

The disease generally persists for a long time,— frequently through life.— The parts gradually become accustomed to the irritation, so that it occasions

slight inconvenience.— It is subject to exacerbations, being at times quite troublesome, & at others the matter contained in the follicles being discharged, or absorbed, and their excessive secretion checked,— they are much diminished in size.— In persons predisposed to Phthisis, the constant irritation which this affection occasions, would, probably, assist in the earlier development of tubercles, than would otherwise take place,—

The <u>treatment</u> may be divided into the general, & local.— Although, as before remarked, this disease generally occurs in impaired states of the constitution, cases may occur, which in their commencement require antiphlogistic treatment.— Such cases however, must be rare, & generally the opposite course of treatment is indicated.— A nutritious diet is important.— Tonics, as Ammoniacum & Myrrh, or Myrrh, Bark & Sulphate of Iron have been found useful.— The Iodide of Iron is particularly indicated in those cases, which occur in Strumous habits.— Of the local remedies, the Nitrate of Silver is the most=

important, — A strong solution may be applied to the parts, by means of a camels hair pencil, — or the solid stick may be rubbed over the follicles, daily, or as often as occasion may require. — A cinnamon lotion, will also be found serviceable. — The external application of castor oil, so as to keep up counter irritation, is useful. — The neck should be kept warm, either by allowing the hair to grow, or by wearing flannel around the throat. — Some cases appear to resist all remedies, & can only be cured, by a change of all the circumstances surrounding the patient, — If his circumstances will admit, a journey to some mild climate, will generally have the desired effect. —

John W. Beebee

VIII.

Dissertation on Hernia.

By
Prosper Kimball Hutchinson, B.A. (Amherst)
Of Plainfield,
Candidate for a License.

The Anatomy & Treatment of Inguinal & Scrotal Hernia.

By P. H. Hutchinson,
Plainfield,
Conn.

We have chosen to treat of these two forms of Hernia together, inasmuch as Scrotal is nothing more than an advanced stage of Inguinal Hernia, and the treatment which is appropriate for the one, will in no very material respect differ from that of the other.

For nearly the first seven months of fetal existence, the testis is in the cavity of the abdomen. It is then covered by a fold of the peritoneum. Retaining this peritoneal covering, which is the Tunica Vaginalis, at about the Sixth month of intra uterine existence, it commences its descent into the Scrotum. At first it meets with the peritoneal lining of the cavity of the abdomen — for this is imperforate — which it pushes before itself like a partially closed sac through the Internal Abdominal ring into the Inguinal Canal, and thence through the External Abdominal ring into the Scrotum. This sac is then called the Tunica Vaginalis, and is the true sac which contains the water in Hydrocele. The neck of

this, which is at the internal Abdominal ring, at first opens into the cavity of the Abdomen; but this is soon after obliterated, thus forming a closed sac for the Testis. Attached to the Testis in the Abdomen, are the Spermatic Cord, and the Cremaster Muscle. Both of these remain attached to the Testis during & after its descent into the Scrotum, and suspend it there. The spermatic cord consists of the spermatic artery & veins, the lymphatic vessels, the spermatic plexus of nerves, a branch of the genito-crural nerve, & the vas deferens, all being surrounded by the common fibrous coat, and the Cremaster Muscle. Anterior to the Spermatic Cord, & partially investing it, is the Cremaster Muscle. This muscle arises from the lower edge of the Internal Oblique muscle, or from the groove of the Crural Arch (Pouparts Ligament), which is nothing more than the Aponeurosis of the External Oblique reflected upon itself, & extending between the Anterior Superior spinous process of the Ilium, & the spine of the os Pubis; so that it may be said

with propriety to arise from either the Internal Oblique, or the Crural arch; since a part of the origin of the Internal Oblique is from the sort of groove situated on the upper surface of the crural arch. Having this origin, the Cremaster proceeds, covering the anterior surface of the spermatic cord, and is attached to the Testis, over which it expands, & is called the Tunica Erythroides.

We have already stated, that the passage of the Testis was through the Internal Abdominal ring, the inguinal canal, & the External Abdominal ring. The internal abdominal ring is merely a perforation in the Transversalis Fascia, that part of the general fascia lining the muscles of the abdomen & pelvis, which lines the Transversalis muscle. This ring is in a straight line, extending from the anterior, superior spinous process of the Ilium, to the spine of the os Pubis; a little nearer to the Pubis, than the Ilium. Between this opening and the external abdominal ring, extends the Inguinal canal. This canal

is formed by the fascia of the External Obligue reflected upon itself, and the fascia of the Transversalis. The anterior wall is the reflection of the External Obligue, & the posterior is the Transversalis. There might be said to be an inferior wall, formed by the groove of reflection, but this is not material in the description. At the anterior, inferior extremety of the Inguinal Canal, is the external abdominal ring. This is formed by the Aponeurosis of the External Obligue. On the inner side of the spine of the Os Pubis, be-
fore the spine & symphisis, the aponeurosis of the External Obligue divides into two slightly diverging bands, which are named the Columna or Pillars of the ring, the interval between which constitutes the opening of which we speak. The direct portion, or the external, or inferior pillar, is attached to the angle of the os Pubis. The reflected portion, or the internal, or superior pillar, is attached to the spine of the Pubis, a little behind the inferior pillar, and from thence diverging, is also attached to the crest of

the Pubis. This part is known by the name of Gimbernat's ligament. This ring is triangular, having for its base, the interval between the Spine & Symphisis Pubis. Its apex is truncated, and from this truncated portion, proceeds the Cremaster muscle. The relation of the External to the internal ring, which are the External & Internal openings of the Inguinal Canal, are of the utmost importance to the Surgeon and Practitioner, in the management of the Sac, and in an Operation; for without a precise knowledge of its direction, he must certainly fail in the one, & make a random cut in the other. These relations determine the direction of the Canal to be, obliquely upward, backward, and outward.

The portion of intestine, or omentum in which consists the Hernia, does not, then, descend through the neck of the Sac, which has received the Testicle; for that is already closed. Arriving at the internal abdominal ring, its further progress is opposed by the

peritoneum, which has closed the passage, by which it might very readily descend. Here, then, commences the force-work of its descent. Pushing along a new portion of peritoneum, and the fascia of the Transversalis beneath it; separating the cremaster muscle from the spermatic cord, and gliding between them, making the fibres of this muscle a part of its anterior covering; & still farther out, pushing, in like manner, before it, the inter-columnar fascia, which closes the external abdominal ring; & gliding beneath the superficial fascia; it arrives in the scrotum, and becomes scrotal Hernia. The anterior covering of scrotal Hernia, consists, then, of a number of fascia, which, in an operation, it may be very difficult for us to distinguish, and separate from each other; yet they all contribute to form the anterior investment. The order of their superposition, in an operation, would be found to be this. After cutting through the common integuments, — the skin &

cellular substance,—we should meet with; 1st, the superficial fascia; 2nd, the inter columnar fascia; 3rd, the fibres of the Cremaster Muscle; 4th, the transversalis fascia; and 5th, the Peritoneum.——— With the exception of the Superficial, in congenital Hernia, these fascia are entirely wanting. The intestine descends before either the internal or external ring is obliterated; and therefore, without any new portion of peritoneum to enclose it in the scrotum; with only the fibres of the cremaster, which still constitute its anterior covering; the Tunica Vaginalis is the only sac for this species of Hernia.

Another form of Hernia, which might, in a superficial examination, be mistaken for inguinal, is where the Hernia, instead of following the oblique course of the inguinal canal, pushes directly outward before it the peritoneum, and transversalis fascia, and appears, at once, at the external abdominal ring. This may be distinguished

from inguinal hernia, in that, the intestine, or omentum, is not found in the oblique, upward course of the inguinal canal. It differs, also, from inguinal hernia in another particular, which is of some importance to the surgeon. The spermatic cord, proceeding along the course of the inguinal canal, receives at the inferior edge of the internal Oblique, the cremaster, as its anterior covering; but the Hernia, in this case, not following the course of the inguinal canal to the external ring, fails to insinuate itself between the cord, & the muscle; & thus descends into the scrotum; differing, in other respects, from inguinal Hernia, only in its direction, & relations with the Epigastric artery; & in not receiving the fibres of the cremaster, as a part of the anterior wall of the sac, in which it is contained.

It might here seem proper to remark, that in either of these species of Hernia, all of the

fascia, which have been mentioned, as constituting the walls of the Hernial sac, are by no means constant. The intestine, in its descent, may rupture either one of them; and we conceive it to be possible, that all of them may be broken through, having only the peritonæum, and Cremaster, to form the sheath of the Hernia.

Degree of Constriction in Hernia.

Hernia may be either Incarcerated, Irreducible, or Strangulated. Incarcerated Hernia, is where the portion of intestine within the sac, is so distended with fluid & flatus, as to stop, entirely, the course of the food. Irreducible Hernia, is where the intestine is so adherent, as not to admit of being reduced; but may, nevertheless, allow a portion of aliment to pass through the constricted portion. Strangulated Hernia, is where there is so much compression of the intestine in the neck of the sac, as to cut off all circulation in the part, which must of necessity prove speedily fatal; but Incarceration may exist, many days, without the destruction of life.

Causes of Hernia.

These are the predisposing, & immediate. The predisposing causes are, an unnatural laxity of the muscles, & wideness between their tendons. Perhaps, we might also include, certain congenital deficiencies of structure, which would admit of Hernia, without any particular immediate cause. The immediate causes are, direct violence to the parts, sufficient to rupture the fascia; or any powerful exertion of the abdominal muscles.

Characteristics of the Hernial Tumor.

How are we to distinguish this from other tumors? We are able to distinguish it,

1st. By its situation; it being in the course of the inguinal canal, at the external abdominal ring; or fell descending from thence into the Scrotum.

2nd It is an elastic, but not a fluctuating tumor; unless the Hernia is of the Omentum; & then it has the unequal, doughy feel, peculiar to that membrane.

3d. Before Incarceration, the patient recollects, that on placing himself in a horizontal position, the tumor has returned into the abdomen; & it was then returnable by the hand of the Surgeon.

4th. It is generally a compressible tumor; at least, before Strangulation has taken place.

5th. A like impulse is given to it, in the act of coughing, as to the other viscera of the abdomen.

6th. If the intestine becomes incarcerated, there is pain referred to the part, and a sense, like that of the drawing down of the contents of the abdomen.

7th. It is generally a tumor without any discoloration; but this index is not invariable.

8th. If Strangulation take place, there is pain, tension, & tenderness of the part. The patient complains of much pain, whenever it is handled; & there supervene the constitutional Symptoms, of a small, & quick pulse, hiccough, & an altered visage.

Hernia, may be confounded

with other tumors.

1st. It may be mistaken for Hydrocele in the cellular substance of the cord. Hydrocele of the cord may be distinguished from this, by the fluctuation, the transparency, & the uniform enlargement.

2nd. It may be confounded with a varicose enlargement of the spermatic veins. The varicose tumor may be distinguished, by the woolly & stringy feel, which is no characteristic of Hernia.

3rd. It may be confounded with the testicle, which descends later in life than usual. But in this case, if we find the scrotum empty, we might well suspect the nature of the tumor, & be very guarded as to our prognosis.

4th. Scrotal Hernia, may be mistaken for Hydrocele of the Tunica Vaginalis; but it can easily be distinguished from this, by the equable distension of the hydrocele tumor; by its transparency, & fluctuation. And, generally, the situation, & direction of the tumor,

within the tendon of the External Oblique, in the upward, & outward course of the Inguinal canal; together with the history of the case, will leave little room to doubt, as to the nature of the tumor.

Causes of Incarceration & Strangulation, & of the phenomena attending them.

1st. Strangulation & Incarceration primarily arise, from the distension of the hernial portion of intestine, by flatus & fluid; for so long as these are absent, the Hernia is certainly returnable.

The accessory causes are;

1st. An unnatural thickening of the neck of the hernial sac. The protruding intestine stretches the sac by its contents, & produces an excitement in the vessels of the membrane, which causes them to secrete new matter; & thus, in old Hernias, the neck of the sac becomes so much thickened, as to appear rather like the dura mater, than the peritoneum.

2nd. The intestine pressed against the walls of the hernial sac, becomes irritated; the serous membrane throws out lines of coagulable lymph, corresponding to the circular sources of irritation, which soon form bands of tendinous strength, and may then become the cause of Strangulation & Incarceration.

3rd. When the Omentum descends, in connexion with the intestine, the constant irritation to which it is subjected, may cause it to become of a firm & tendinous consistency; & it may adhere directly to the surface of the intestine; & in either case, become the cause of the trouble

4th. The fascia of either Abdominal ring, may at any time become the cause of Strangulation or Incarceration, when the intestine is sufficiently distended by its own contents.

The phenomena attendant upon Incarcerated or Strangulated Hernia, are peculiar. There is generally a sudden attack of great pain

in the region of the abdomen, followed by the desire for a stool; & after this, obstinate costiveness. Retarded feeling is present in the upper part of the abdomen. The pain is now fixed in some particular part. The belly is distended with flatus, which, ever & anon, roll towards this part with acute pain; remains stationary there for some time; & then gradually subsides. At first, the pulse is quick & hard. It soon becomes quick & thready; the countenance sinks, & evinces signs of great distress. Great restlessness, hiccough, & fetid eructations, succeed. The abdomen becomes distended, excessively tender, & painful to the touch. The pulse becomes weak, thready, & intermittent — the hair is wet with perspiration — a cold sweat covers the surface, & the patient sinks. On the article of death, he has a respite from his torture; & the countenances of friends are lighted up with the hope, that the danger is over; but the surgeon knows too well, that inflamation, & sensibility

have yielded to mortification; & that this delusive calm is but a premonition, that the grave is sure of its victim.

Appearances on Dissection.

A turbid serum fills the abdomen. A few turns of the intestine fill the whole abdomen, and they have crowded back, & hidden all of the intestine, below the obstruction. The intestines are highly inflamed, & covered with pus, & flakes of coagulable lymph. Their color is dark, purple, becoming deeper & deeper, & approaching nearer a state of gangrene, as we descend towards the point of obstruction. The strangulated portion is already in a state of mortification; but the portion of intestine below this, is contracted, & almost colorless; except a small portion in proximity with the obstruction. The vessels display no turgidity; & indeed the whole of this part of the intestine, seems to be almost entirely free from any excitement, or inflamation. From these observations,

we must conclude, that the termination twisting of the upper part of the intestine, proceeding to, & terminating in, the point of obstruction; together with that sense of the drawing of the intestines down to the part, are nothing more than violent, & spasmodic efforts of the intestine, to draw itself from its incarceration; which finally results in irritation, & inflammation of the intestine, & is the cause of the subsequent symptoms. It appears, then, evident, that all drastic purgatives, that all excitants of the canal, above the obstruction, should be scrupulously avoided; and that all hope in this direction, must be fixed upon narcotics, & in sufficient doses, too, to subdue the peristaltic action, & morbid irritability of the intestines;—those sure precursors of its inflamation & death.

Treatment.

Reduction by the Taxis.

It should be the maxim of the surgeon, to handle the tumor no more, than what is

absolutely necessary. Too much handling, is worse than too little; producing irritation, & consequent inflamation, & leading speedily to the same fatal termination, we are laboring to avoid. Various adjuvants have been recommended for us to employ, in assisting reduction by the Taxis. All of them, perhaps, are valuable, & should be employed with assiduity. Full doses of Opium should be given to produce narcosis. Pounded ice & salt, or cold water, should be applied to the Hernia, for the purpose of corrugating the Scrotum; lessening the bulk of the hernial tumor; & gaining a truce with the inflamation, which would, of itself, greatly augment the bulk, & lead to speedily disastrous consequences. For the same purpose, equal parts of Nitre & Sal ammoniac, in the proportion of 10 ounces to a pint of water, may be used; or we may pour over the tumor 1 or 2 ounces of Ether, & allow it to evaporate. If the smarting becomes intolerable, pour on cold water for a minute or two,

Belladonna. Stramonium & Tobacco may be applied, and then combine the other as before. If these measures should not succeed, we should have recourse to the warm bath, to relax the muscular fibres, & render the constricting aponeurosis loose; and thus present the aperture more distensible. If the patient has a plethoric habit, an inflamatory constitution, or if arterial excitement is already present, venesection should be resorted to, with a firm determination to subdue the untoward symptoms, & relax the general habit of the body. Perhaps, to produce the same effect, small & repeated doses of Tart. Antim., to produce nausea, might be given, if the symptoms admit of sufficient delay. Clysters of the smoke of tobacco, or of an infusion, of ℥3 to a pint of water, may be resorted to, to promote peristaltic action in the lower part of the intestine, as well as to produce thorough relaxation of the parts. We should not, by any means, advise this course in every case; for it is sometimes followed by fatal consequences.

It should only be resorted to in extreme cases, in patients of vigorous, & strong constitutions. Whatever injections we may use, they should be repeated, if necessary, so as to distend the whole of the large intestines. All this while, we should starve the patient, that no new cause of irritation, might be superadded to those already existing.

In connexion with these exhibitions, we should at all times, endeavor to return the protruded intestine by the Taxis. For the purpose of performing this with efficiency, the patient should be placed on his back, resting on his head & shoulders, with his hips, & thighs raised, & supported. The thigh of the same side with the Hernia, should be flexed towards the abdomen, & inclined inwards, so as completely to relax the abdominal muscles. Both hands should now be applied to the tumor, & the first effort should be, to press, gently & uniformly, the contents of the hernial sac, into the intestine in the cavity

of the abdomen; for without this can be done, no reduction is possible. When this has been partially accomplished, we should, with one hand, accumulate the sac upwards, towards the passage of the ring; & with the fingers of the other hand, direct the intestine to the centre of the ring, kneading it through with the ends of the fingers, & sustaining the portion already reduced. At all times, except in direct Hernia, we should remember to make our pressure upward, & outward, in the course of the Inguinal Canal, which is in a line, extending from the Spine of the Pubis, to the anterior, superior spinous process of the Ilium. Disregarding this, we shall inevitably force the intestine against some one of the circumjacent fascia, & by our own ignorance, render reduction impossible. The pressure, too, should be gentle, & gradually increased; for it is rather by much perseverance, than by much force, that we are able to succeed. Should all of these measures, however, fail

(and we should by no means advise to defer it as a last resort,) two assistants should be ordered to flex the trunk forcibly, so as to cause severe pain, & make the patient cry out; & at this instant, the surgeon can often return a hernia, which had been given over, as irreducible. We may refer the success of this method, to the action of antagonist muscles. Before this, from pain & irritation, the muscles of the abdomen were called into unwonted action; & thus were rendered tense, & unyielding. But when this new set of the muscles of the back were called into such violent, & astonishing action, the muscles of the abdomen, if I may so speak, forgot, for the moment, what they were about; & the Hernia was returned, before they had taken the hint, that a trick was about to played off on them. All of our measures, in urgent cases, should be instantly, & assiduously employed; for the delay of a few hours, will often render an operation

useless; since death has done its work on the intestine, & the case has passed beyond the art of the Surgeon.

Operation

The operation for Hernia is very simple; & yet the simplest operations are often the most difficult. The manner of cutting is not obscure; but there is here a demand for the utmost circumspection of the surgeon; for hap-hazard work, will often make the operation — a very simple one to himself, indeed — a mortal one to his patient.

An operation, here, supposes that the relations of the Epigastric artery are known. This arises from the External Iliac, just as it is about to pass under Poupart's Ligament; winds up on the parietes of the abdomen to the Rectus Abdominis, & may be considered as particularly the artery of that muscle. In its course it crosses the direction of the Inguinal Canal at nearly right angles, about midway between the External, & Internal ring. The External ring is on the pubic side of the artery; but its relations with

this ring are of no great importance, since, in opening the Inguinal canal, the careful operator is in no danger of wounding the artery, inasmuch as the posterior wall of the Canal intervenes between it, & the knife of the operator; in short, it is in the cavity of the Abdomen, & not in the Inguinal Canal. But if the case is one of Direct Hernia, or the constriction is at the Internal ring, its relations become most important. Direct Hernia is on the pubic side of the Epigastric; & hence if we should cut upward & inward, we should entirely avoid the artery; but the Internal ring is to the Iliac side of the artery; so that, if we should cut upward & outward, we should, in like manner, avoid the artery. This would give us the rule, to cut upward & outward in Inguinal, & upward & inward in Direct Hernia. Now, if we could be always certain whether it was direct or inguinal Hernia, the rule would be at once established. But it is sometimes impossible to distinguish the one from the other. We may be mistaken, & a mistake would lead to disastrous consequences. It is desirable, then, to use the knife in some way, so as always to avoid this Artery, whatever be the form of the Hernia. This is accomplished by cutting directly up-

ward, in a line parallel with the axis of the body; and this is the surgical rule.

The question here arises, when shall the operation be performed? This cannot be answered positively, as to duration of time. A recent Hernia, that has made its appearance suddenly, will often in a few hours pass beyond the skill of the surgeon; while a hernia of long standing may remain a number of days, without the intervention of the more formidable symptoms. Whenever we are assured, however, that reduction is impossible, the quicker the operation is performed, the better. Yet, as long as there is not much pain or tenderness in the tumor, even though the vomiting should be severe, we may, perhaps, be excused for delaying the operation, hoping, that possibly, in the mean time, some more favorable termination may occur.

The operation is not one of those set operations, where the appearance, & relation of the parts, are all known beforehand. The cellular substance of the rings, protruded as a part of the covering of the tumor, may have become indurated & thickened, so as to resemble the firm tex

ture of the Fascia Lata of the Thigh; the peritoneal sac may have adhered to the cellular substance investing it; or the intestine, to the internal walls of the sac. And, again, in hernias of long standing, the Internal ring may have been dragged down to the External, & the canal obliterated. This is a congenital peculiarity in children, which the surgeon will do well to remember. Care should be taken, then, that we are not deceived, as to the texture, which we are essaying to cut.

We should commence the incision a little above, & to the outside of the External ring, carrying it down in the direction of the tumor, about half an inch below Poupart's ligament, dividing only the skin & cellular substance; or perhaps only the skin. Then with the forceps, or the fingers, (the latter are preferable) - we should pinch up a fold of the superficial fascia, & make a slight opening in it with a horizontal incision. The director should then be carried up under it, & the blunt bistoury used to divide it. In like manner, the intercolumnar layer, if it has not already been ruptured; the fibres of the cremaster, & the Transversalis covering, should

be divided, fibre after fibre, slowly & cautiously, till we arrive at the Peritoneum. When incising down upon parts of so much importance, & often so obscure, it should be the invariable rule of the surgeon, to cut all the tissues, with the back of the knife directed towards the hernial tumor. The director; or what is better, the finger; should then be insinuated up under the Ring, & the probe pointed bistoury, carried up on its upper surface, under the strangulating fascia, & the division of the constricting fibres made, merely by separating the knife from the finger which supports it. The finger should now be passed along the Inguinal Canal, to be sure that there is no other point of constriction; & that no new portion of intestine has descended into the neck of the sac, & is almost ready itself to give way. In Direct Hernia, we must proceed still more cautiously. The protruding hernia may have pushed before it the spermatic cord, which has expanded by the pressure, & become a part of the anterior covering of the Hernial tumor. This circumstance may generally be detected, by taking the tumor in one hand, & moving the cord with the other. It will then generally appear

whether it passes before, or behind the tumor. If we find it situated anteriorly, we should, in the same cautious manner as before, separate the textures down to the cord, turn this aside, and complete the operation.

Thus far, we have supposed it unnecessary to open the Hernial Sac. We have supposed that the sac, on returning into the abdomen, would release the Intestine; & thus obviate all farther trouble. But this is not always the case. In recent hernias, where there are no morbid depositions on the interior of the neck of the sac; and where there are no adhesions of the Intestine, or Omentum; this course would be considered safe & advisable. But in old hernias, the irritation in the neck of the sac, has caused morbid action; its walls have been intruding inwards by depositions of coagulable lymph; and the intestine, in many instances, has adhered to the sides of the sac. If the intestine & sac are returned, in this state, into the abdomen, the constriction around the intestine would still remain; & there must follow the most formidable symptoms, & the fatal termination

of strangulated Hernia: or the intestine may be in a state of irritation & inflamation, & will not endure, without fatal consequences, the pressure of the sac, which would not, of itself, be sufficient to cause the disastrous termination.

It then becomes necessary for the surgeon, in such cases, to open the Hernial sac. Having reached it by the cautious dissections before directed, we should pinch up a fold of it with the fingers, & move the internal surfaces on each other, to discover whether we have included any portion of the intestine. Although the adhesions may be very general, we shall discover some point, where the parietes of the sac are free, and there we should make a narrow opening, with a horizontal incision, as before directed. The finger should then be insinuated up to the neck of the sac; and a blunt bistoury be carried along its upper surface, to divide it. A probe pointed bistoury should then be insinuated, on the end of the finger, into the contracted portion, & this be divided by separating the bistoury from the finger as before. Care

should be taken, in this proceeding, not to wound the intestine, which may curl over the finger, and suddenly come in contact with the edge of the knife. If, at any time, the intestine is so distended, & the neck of the sac is so narrow, as not to permit the end of the finger to be introduced, a spatula may be insinuated, and the operation performed as before. If the adhesions between the Omentum & intestine; or between either of these, and the Peritoneum, are slight, they may easily be broken up with the handle of the scalpel; but if they are so firm as not to admit of this, we can only separate them by dissecting them up with the greatest of care.

Having opened the hernial sac, we should next examine the state of the parts within; for, to return into the cavity of the abdomen, a portion of intestine, whose vitality was destroyed, would be only to make irremediable the evil, we were laboring to cure. In this examination, we should exercise much caution in handling the parts; for the coats of the intestine may

be in such a state, as to be already on the point of giving way. We may find the intestine discoloured — livid, & appearing as though its life had departed; but as long as its surface retains the smooth & shining appearance of the peritoneum, we should return it; for the recuperative efforts of nature will generally be found sufficient, to reanimate it, & restore its functions. But if this smooth & shining aspect has departed, & the surface presents a rough & floculent appearance, the intestine no longer possesses any vitality, & should not be returned. It should be left out of the wound, for the dead portions to be thrown off by sphacelation, & to allow the contents of the intestine to be evacuated externally, & not into the cavity of the abdomen. It is possible, that the sphacelated openings may close, with the healing of the wound; or, if the entire circumferance of the intestine be found in a state of mortification, it might still be a question, whether it would not be advisable, to remove the dead portion with the knife, & bring the living parts

together with stitches; if so be, that they might be united by adhesive inflamation. If the hernia is of the omentum, this may, in like manner, be found in a gangrenous state. Here, there can be no doubt, that the mortified portion should be removed by a ligature, or the knife. We should prefer the latter method, without fear of hemorrhage. It has been advised by some authors, to allow the omentum to remain out of the wound, till all hemorrhage has ceased; but when returned into the cavity of the abdomen, hemorrhage will almost invariably return. The bleeding arteries should be secured with ligatures, the ends of which, should be allowed to hang out of the wound, till they are thrown off. In another case, a portion of the omentum may be so much indurated & enlarged, as not to admit of being returned, after the stricture is divided. This enlargement should be removed, like any other tumor; the arteries secured; & the part returned as before.

In the dressing of the wound,

there is nothing peculiar. A compress should be bound on over the site of the tumor, & the patient be instructed to press his hand on the part, when he rises from bed, walks, or makes any straining effort with the abdominal muscles.

After the tumor is returned, and an evacuation has taken place, it is generally considered, that the period of danger has passed by. It is a question, here, whether we should administer a cathartic, if evacuations are not secured in a reasonable time after the operation. If, on opening the sac, & examining the intestine, we do not discover any material alteration in color or texture, a mild cathartic & emetic may be exhibited, if necessary; but if we find the intestine much altered in color or texture, & especially, if inflamation is present, we should not irritate, by cathartics.

Finis.

January 17. 1846.

IX.

Dissertation
on
Puerperal Mania.

By
George Whitfield Ives, B.A.
of New Haven,
Candidate for the Degree of Doctor in Medicine.

Puerperal Mania

Among the various affections incident to the puerperal state Mania, at the present time is not a very uncommon one — It may occur at any period during that long process in which the sexual organs of the female are employed in forming, bearing, expelling and feeding the offspring; but there are two periods at which it is chiefly liable to occur — the one soon after delivery, when the body is sustaining the effects of labor — the other several months after, when the body is sustaining the effects of nursing —

It would be difficult to give a general description of this form of insanity — A specimen of each of a number of individual cases would form a bewildering multiplicity of circumstances, which never occurred together in one & the same instance, and would not give a faithful picture of the symptoms and aspect of the disease — In fact, there is usually nothing peculiar in its manifestations — A physician could not tell, from the mere condition of the patients mind, that this had become disordered from bearing-in, or nursing — I have known it to assume the form of Melancholia, of a pleasant excitement with agreeable hallucinations, of violent mania with the use of the most profane & obscene language, of constant petulance, and irritability of temper, or of deep depression with a most determined propensity to suicide —

It has sometimes, however, peculiarities — resembling Delirium Tremens, in a case of great uterine irritation, putting on the form of Nymphomania.

With regard to the causes of Puerperal Insanity, there exists a variety of opinions among authors — Dr. Marshall Hall says "it generally, in women, intestinal irritation, or exhaustion, and perhaps, inflammation, and uterine irritation" — He thinks it does not depend upon anything specific in the condition of the sexual organs at the time — But that the susceptibility of the puerperal state depends upon mere exhaustion or irritation, is questionable; for an equal, or greater degree of exhaustion, or irritation at another time, will not occasion the disease —

Dr. Gooch says he has seen patients who were deranged in childbed, and had recovered, at a future period much more exhausted by illness, and much more agitated in mind, without the slightest appearance of mental derangement — And yet, where there has been much loss of blood by hemorrhage, or venesection, the effects of this, concurring with those of intestinal irritation, may bring on derangement — Certain it is that loss of blood, during an attack, usually aggravates all the symptoms —

It is certain that in a large proportion of cases, the patients possess an hereditary predisposition to insanity, or a nervous, susceptible disposition, with an unusual degree of that peculiarity of nerve and mind which distinguishes the female from the male constitution

Women who have this predisposition seem, both during pregnancy, and immediately after delivery, more susceptible to attacks of insanity than at any other periods — Before delivery, it may be owing in part to the inflammatory diathesis which is so common an attendant upon the state of gestation — We know that in many cases, it is necessary during some part of this period, to abstract a few ounces of blood from the system — Now, where the brain is the part affected, & the disease is allowed to go on unchecked, insanity is sometimes the result — Ellis states several cases, where it came on under these circumstances, some time before delivery

After delivery, the disease sometimes appears to arise from the brain sympathising with the uterus, from the stoppage of the lochia — or from its sympathising with the breasts — from colic, or any other cause interrupting the secretion of milk — or, from the combined influence of all the circumstances following par=turition —

In some instances, the patients have been for a long time under the influence of depressing passions — such as religious despondency; or exposed to some sudden cause of mental agitation, — as bright alarming news &c — while lying-in — I know a case in which the woman was confined during a revival of religion in the

neighborhood. Her husband & some zealous friends in her room, soon after her delivery, to pray for her conversion. The consequence of this was, that she became very anxious, and disturbed in her mind - and in a short time, deranged - On being removed to the Retreat at Hartford, was placed under appropriate treatment, she speedily recovered - Recently I saw a lady, brought to the Retreat, a week after delivery, apparently much exhausted, yet laboring under great mental excitement - She refused to nurse her child; her breasts were much swollen, & she was unable to procure a moments sleep - After the recovery of her mind, which took place almost immediately, she stated that the agitation, produced by the presence and conversation of numerous friends had caused her derangement - that she felt it coming on, and had requested her husband to remove her to the Retreat several days before he did so -

In many cases, however, no such circumstances occur - The patients have lately been delivered, or they are nursing, and that is all - They may never have been deranged before, or on any other occasion than this - There must be something, therefore, in the state of the constitution induced by gestation, lying-in or nursing, capable of developing the disease in predisposed constitutions - This state of the constitution is owing, probably,

to the unusual excitement diffused throughout the nervous system at the intervals when the sexual organs are called into action. — The proofs of this excitement are seen in the hysteric affections of puberty — in the nervous susceptibility which occurs during every menstrual period — the nervous affections of pregnancy & in the nervous susceptibility of lying-in women — These appearances, it is true, are not to be observed in every instance of puberty, menstruation, pregnancy or confinement — but they occur sufficiently often to shew that these states are liable to produce these conditions of the nervous system —

Whatever the causes of the disease may be, — the most important consideration is, the morbid state on which the disorder of the mind depends; for this must decide on course of <u>medical</u> treatment —

Raving of the mind is commonly attributed to inflammation of the brain — Mania is called "brain fever", and the sight of a raving patient, particularly in childbed, instantly suggests to some physicians the thought of cupping glasses ice-caps, bandit & purgatives. But disorder of the mind may be connected with very opposite states of the circulation; sometimes with inflamation, or active congestion, for which

depletion is the shortest and surest remedy; at others, with an opposite state of the circulation, which depletion will only aggravate — Cerebral excitement does not necessarily depend on inflammation, or congestion; nor is depletion, however moderate, necessarily the proper remedy — On the contrary, it is often aggravated by depletion & some cases of Puerperal Mania been actually brought on by it — "An attentive observation", says Dr. Gooch, "of the causes which bring on the disease, of the bodily symptoms which accompany it, the way in which it is affected by remedies, and of the morbid appearances after death — have led to the conclusion that it is not a disease of congestion, or inflammation, but one of irritation, or excitement without power." The secretions of the alimentary canal — are often disordered — The symptoms which indicate this are, a furred tongue, offensive breath, and dark & fetid stools — These symptoms exist in very different degrees in different cases — In some they are scarcely perceptible, while in others they are very marked — In the latter case, they would sometimes seem to be the principal cause which keeps up the disease, for as soon as they are removed the patient gets well —

Like other kinds of insanity, this, if not attended to in

season, and met with appropriate treatment, is liable to run into a chronic state, and put on the form of Melancholia, or Dementia, which may be ameliorated, but can rarely, if ever, be cured — Such are most of the permanent & incurable cases to be found in our Insane Hospitals —

It was once thought by some that this disease was never fatal — It rarely is, when left to itself, or properly treated — but sometimes, death takes place after a short period — According to Drs. Hunter & Gooch there are two distinct forms of the disease; "the one attended by fever like paraphrenitis, with a rapid pulse, the other accompanied by a very moderate disturbance of the circulation — the latter cases, which are by far the most numerous, recover — while the former generally die" — yet some, who have not been treated for paraphrenitis, have recovered

I come now, to the most important part of my subject — the Treatment of this disease — This must be regulated, not so much by the disorder of the mind, as by the bodily symptoms which accompany it — The indications are, to insure mental, and bodily quiet by every mode — to remove vitiated secretions, and restore the healthy action of the stomach and alimentary canal — to remove irritation — equalize excitement & procure regular sleep — and finally to invigorate & restore

the tone of the system — If the disease threaten to be considerable
duration, and the patient cannot be placed in an institution which
is appropriate to the treatment of such cases — her ordinary at-
tendants should be removed & a nurse accustomed to the care
of deranged persons placed in their stead — Such a person will
have more control over the patient & be more likely to protect
her from self injury — If at all disposed to commit suicide,
she should of course be carefully watched — Her friends, and
all persons, whose presence is not necessary, should be entirely
excluded, as their presence is apt to keep up the morbid
associations on which her delusions are founded — Her room
should be retired, thoroughly ventilated & of a proper temperature
The diet ought never to be very low, as more or less exhaustion
is generally present — and any appearance of strength is owing
to excitement — It should be light but nutritious; at first
gruel & broths, with occasionally some substantial food — As the
irritation & excitement subside, a little wine or other stim-
ulants may be required occasionally — After evacuating
the bowels, if this should be necessary — I would regulate the
secretions & excite cutaneous action during the course of the disease
by alterative doses of calomel & mild laxatives combined
with tonics — Sleeplessness, which is often one of the most

obstinate symptoms only in the disease, must be overcome by allaying the irritation & excitement upon which it depends — For this purpose the Nervines & Narcotics are to be relyed upon The Ethers, with Opiates are generally found to answer best — through Hypochondriasis — Camphor, Valerian &c are used —

Depletion, by blood-letting, or otherwise, is rarely if ever indicated and in most cases only tends to aggravate the disease — If employed at all, it should be with the utmost caution & with a careful attention to the symptoms — Local, is preferable to general bleeding — For want of this caution, and from the employment of free depletion - based upon the false supposition that the disease is inflammatory in its nature, many patients have been lost or rendered infirm nervous for life - "The only cases attended by a very quick pulse which I have seen recover," says Dr. Gooch," were those in which no blood was taken" If too much debility is not present, the warm bath will be found serviceable —

The opiates should be continued until the nervous excitement & irritability is allayed - and regular sleep & tranquility of mind procured — They may then be gradually diminished - but are to be resumed again if the symptoms return - and the patient may be put upon tonics & if necessary mild stimulants — The

Aromatic Tinct. of Bark or Huxham's Tinct. may be used – or any other articles which the particular symptoms of the case may determine – One of the best medicines at this stage of the disease, and one which I have seen most frequently employed in this, & other forms of insanity, is Todd's Common mixture, composed of Extr. Cinchonæ – Precipitated Carb. of Iron & wine with some aromatic – & Starch or Molasses to suspend the iron – It is tonic, alterative & stimulant – It should be continued for some length of time, until the appetite becomes improved and a healthy state of the digestive function established Exclusion from friends, & moral control over the patient, should be kept up to the last – There can be no doubt that it is both useful & necessary to separate the patient from all those persons who might prove sources of excitement of any kind She should be kept from such until entire recovery has taken place – When patients are mending, or have, even, quite recovered, the most common cause of relapse is, too early an introduction to her friends, or a too early return home – and a few weeks more or less of confinement, however irksome it may be to the patient, is not to be considered when so much is to be gained by it –

It is a question of some importance whether the disease is likely

to recur — There is no reason why the same causes operating again should not produce the same results — and in fact, when Puerperal mania has once occurred, whenever pregnancy takes place subsequently, the irritation frequently reproduces the disease — In these cases there is probably a predisposition to it — By carefully watching the premonitory symptoms, however, not only in the next but in all subsequent confinements, we guarding against them relapses may almost always be prevented — The alimentary canal should be thoroughly evacuated before delivery, & the secretions, if vitiated, should be corrected — Every form of irritation, mental & bodily, should be guarded against — and the first appearances of restlessness, want of sleep, or mental agitation should be met with Opiates or other appropriate means —

To illustrate the above remarks — & those in particular which relate to the treatment of this disease I will state several cases that were brought to the Retreat for the Insane at Hartford — Many cases came under my own observation during a year's residence there, and all of them recovered, with one exception — In this one case the patient was in a moribund state when admitted, and died in less than two days —

Case 1st — A lady was admitted in the latter part of August —

She was confined in June previous - For some time before her confinement she had been subject to chylopoietic derangement - + immediately after this event her mind was much agitated by witnessing the sufferings + death of a child by Hydrocephalus - She soon became raving ly insane - Notwithstanding the great reduction of vigor her system had sustained from deficient nutrition - the depletion incident to childbirth + the depressing effects of purgatives + grief - her physician deemed it proper to bleed her to the extent of fifty ounces in two days - to commence a course of starvation + to drench the bowels with drastic cathartics! - The event was a fatal Hydrocephalus - When admitted she exhibited all the cerebral phenomena of Mania Furens - Her skin was very sallow + her countenance haggard - Diarrhea has followed her for some time - Her feet + legs were edematous - pulse weak, small + frequent, tongue clean appetite gone - She has short periods of composure alternating with fits of mania in which she talked + sang much - She slept but little + spent the night in dancing + singing - She was put upon wine, bark + opium - She continued much the same for a number of days - except that she slept better after a while - She frequently complained of dizziness - Her diarrhea continued to trouble her in spite of appropriate treatment - She continued very feeble + without appetite - At the end of the third week her diarrhea was checked - but she showed

loss of memory & talked more incoherently — The wine &c were continued — she grew more feeble & wild — refused to take medicine — threw her clothes out of the window &c — The diarrhea returned at intervals & every return weakened her — Acetate of Lead was added to the opium & the tonic and stimulant treatment continued — but she continued to sink & died about five weeks after her admission into the Retreat —

Case 2nd The patient was a lady twenty three years old — Violent mania came on one week ~~after~~ before her confinement with her first child — & continued for four weeks when she was brought to the Retreat — She was then much excited & talkative, but withal very pleasant — imagined herself an em=press &c — She had threatened herself & others with violence & was at times exceedingly profane & vulgar in her language — She was put upon a Solution of Morphine immediately — & this was continued nearly two months — during which time her excitement gradually diminished, while her strength increased & she became much better in every respect — The Conium Mixture was now added to the Morphine & one month later she was discharged entirely recovered — In this case there was a strong hereditary predisposition to insanity

I might present a number more of cases — to show the injurious effects of depletion in this disease — & the propriety of an opposite course of treat=ment — but these will suffice —

January 1846 George W. Ives —

X.

Dissertation
on
Intestinal Worms.

By
Job Kenyon,
of Exeter, R. I.

Candidate for the Degree of Doctor in Medicine.

On Intestinal Worms

It is somewhat humiliating, to know that the body, not only after death, but during life furnishes habitation & nourishment to many inferior animals; which germinate in every part of our tissue, & luxuriate on the rich juices of the animal body; & ultimately become the source of numerous & painful diseases.

Independently, of the minute & scientific divisions of these parasites into genera & species, too numerous to mention, & unimportant to the practical Physician, there are broad lines of distinction between these creatures. those infesting the interior of our bodies go under common name of Entozoa, whilst those on the exterior are called Ectozoa.

To attempt a description of all the different species of Entozoa would lead me beyond the limits assigned for this dissertation; & hence, I shall confine myself more particularly to those, found only in the United States, & infesting

the alimentary canal of children.

The different parasites inputing the human intestine are usually enumerated under five species viz, the Ascaris lumbricoides: the Ascaris vermicularis sometimes called the oxyuris: the Trecocephalus, the Tinea lata & solium. Of them the oxyuris lumbricoides, the Trecocephalus, are more frequently found in children, whilst the Tinia's though accasionally met with in children are usually the past of riper years.

of the Ascaris lumbricoides

This worm is of a cylindrical form varying from three to twelve inches in length, with a diameter of from one to three lines. Its color is commonly yellowish white, but is somewhat changed by ~~contents~~ the excrementitious contained in the alimentary tube: the head is triangular, & when seen under the microscope presents three small tuberosities or valves, which according to Bremser, the worm has the power of opening & closing at pleasure: between these, may be observed a protractile orifice, which is its mouth.

The alimentary canal terminates posteriorly in a transverse depression on the ventricular surface. The male is much smaller than the female, from which it is distinguished by the peculiar curve of its caudal extremity; & according to Dr Gross, by its forked penis. This worm is thought to possess a high degree of organization, being furnished with a muscular & digestive apparatus, together with a well developed sexual system.

It usually infests the small intestines, - often found in the stomach, & sometimes penetrates to the gall bladder.

& common bile duct.

Ascaris Vermicularis

This worm is from two to five or six lines in length, of a whitish color, terminating anteriorly in a blunted point, with an orbicular mouth, & a bladder like transparent membrane on each side. The posterior extremity terminates in an extremely minute

point, "resembling", says, Dr Eberle, "the point of the finest needle". Brera, describes this worm as exceedingly voracious, & attributes the irritation produced by it to its quick & varied motions dependent on its elasticity. He describes it as full of transverse wrinkles, capable of being elongated & contracted at pleasure. The male is much smaller than the female, & rarely more than three or four lines in length. The genital organs are contained in a sheath. This worm is usually found in the large intestines, where they accumulate in large numbers, & occasionally, in the female migrate into the vagina producing intolerable irritation.

Trichocephalus dispar

This worm usually called the long thread worm is from one to two, to two inches in length; with a white cylindrical body, not longer than a hair, anteriorly. The posterior third is somewhat larger, & terminates in a rounded

extremity. The capilliform portion is transversly striated, & according to Brera rolled in a coil. The alimentary canal runs from before backwards & terminates in the thick bulbous portion, which assumes a flattened & spiral form. This worm though common in Europe is rarely found in the United States; & the only instance of its detection was by ~~the~~ Prof. Ives of this institution. its usual situation is in the large intestines particularly in the caecum.

Another Genus of worms usually ~~described~~ classed in separate species are the Tinea lata & Solium. These infest the human intestines but are rarely met with in children. They are characterized by their enormous length, & the numerous joints entering into their compositions.

They differ somewhat in their appearance, thought upon a superficial examin

-ation, are not readily distinguished.
The Linea lata is broader & thinner than
the other species; its color is a dirty white.
The head according to Condie is large, with
two lateral grooves which are considered by
Rudolphi to be the organs for the absorption
of nourishment. This species is rarely
met with in the United States, but are
prevalent in Russia, Sweden, & Poland.

The other species, or Linea solium
is of a white color; the anterior part
tapers to an extreme narrow neck with
a minute head, armed with four suc-
kers, between which, we can sometimes see
its mouth. (Condie) It terminates posteriorly
like the preceding in a rounded extremity.
The articulations are long & narrow with
marginal pores; by which Dr Good supposes
it attaches itself to the intestine; & from which
it is removed with difficulty.
These worms are often of incredible len-
gth; varying from 10, to 100 ft. or length

more. Bourhone mentions the discharge of a Tinea, measuring 300 ells.

Their usual situation is in the small intestines, where according to Dr Good they feed on the chyle & other animalized matter; occasionally however they have been found in the stomach; & sometimes in the urinary bladder.

If the origin of intestinal worms we know but little, since that subject seems yet involved in much obscurity; & it would probably be better to confess our ignorance on this point; than to wander into the hypothetical theories of those who uphold the doctrine of equivocal generation.

This theory however seems somewhat shaken by the fact; that, hitherto all animals & insects of whose mode of procreation we have become acquainted, strictly, observe the law of race & species; & from hence, it would appear reasonable to infer that intestinal

worms observed the same law, till it is satisfactorily proved (which, hitherto it has not been) that they owe their existence to a different cause. Nor would it appear rational for us to assume because we are unable to detect their primary origin; that they are an exception to a natural law: since it would seem far more reasonable that man should err in his investigation, & overlook the object sought for; than that nature should be guilty of such an aberration. It would seem also by admitting this hypothesis we should be compelled to admit of its extension; for if vital action is, in the one case the result of equivocal causes; there can be no reason why it should not be in all: & the same causes that would give vitality to intestinal worms, would if operating under favorable circumstances give vitality to all created beings; thus rendering life the result of a fortuitous combination of matter.

difficult, indeed, must it be to assign a use for the generative organs of these animals under this theory: for if matter is endowed, not only with organization, but vital properties either by chemical action, or creative warmth; we can assign no function to that complex structure which, usually if not invariably, tends to the production & perpetuation of its species.

There is however, not a little difficulty in accounting for the production of worms in the foetus, & closed cavities of the body, upon the ovular theory. For small must be that ovum, which is taken up by the absorbents & carried into the circulation, & again deposited in the animal tissue. Improbable as this may appear it seems to rest upon a better foundation than the equivocal theory; which receives little countenance from facts, & no evidence from analogy & whose only position is the objection

urged against the Arabian hypothesis.

If we permit ourselves to embrace this hypothesis where are we to end? whereon are we to assign limits to this creative attribute? we extend it to every state of animated & possible being; & soon arrive at the conclusion already advanced by some writers, that the Mind or Soul is a mere result of organization; & destined to as transient a state of existence as the animal body. Thus overturning every principle of natural & revealed religion, & involving ourselves in the depths of materialism.

At no very remote period of the science of medicine, nearly all the diseases of childhood were attributed to intestinal worms; & notwithstanding the light thrown upon this subject by more modern investigations; there still remains some discrepancy of opinion, as to the part which worms perform in certain phenomena

usually, though not invariably, associated with their presence. Whilst one body consider them invariably detrimental to human health, another, consider them so only from increased numbers: whilst by a third they are not only regarded innocent, but as forming a part of a healthy Constitution.

That worms are not invariably detrimental to health, would seem established by the fact, that many cases occur where worms are found to exist by their discharge in which, not the slightest symptom indicated their presence. & it is the opinion of Andral, Cordier, Stokes, & others, that they may exist in every possible pathological condition of the alimentary Canal. There is however some difficulty in adopting this opinion when we take into consideration the formidable symptoms enumerated by authors as depending on their presence. Since

if by increased numbers, they irritate, & disease the ~~the~~ alimentary canal; every worm must perform a part of that irritation; & though failing, when solitary, ~~&~~ to produce irritation sufficient to create uneasiness: may nevertheless form a nidus in the intestines where others are generated.

That worms do create ~~uneasiness~~ some degree of irritation, even when solitary, the authors which I have just quoted seem to substantiate: for Andral, though he found them in all conditions of the alimentary canal; found them enveloped in mucous, with some slight redness of the part immediately surrounding them.

It must however be acknowledged that worms, though existing in the alimentary ~~canal~~ tube form a much less important part in the production of disease, than formerly anticipated; & of all the symptoms enumerated by writers as depending on their presence, none,

with the solitary exception of their discharge, is perfectly harmless. & though capable of producing much, & dangerous irritation in children; they not unfrequently exist in apparent health.

Worms of different species seem peculiar to different localities. Thus whilst the Ascaris are more frequent in Russia Poland, Switzerland, & some parts of France; in the United States, & Great-Britain, the ascaris lumbricoides, & Oxyuris, are the most common species, Prussia considers worms as more common in cities than in the country; an assertion which does not accord with the experience of some writers. They are found more frequently in low, confined, & damp situations, than, in those which enjoy a more salubrious atmosphere; & in Spring, & Autumn more frequently, than in other seasons of the year. whilst among those, who are ill

fed; or who are nourished with unwholesome food; they are peculiarly prone.

These phenomena may all be resolved by the admitted fact, that those who from any cause suffer from atony, or derangement of the digestive functions, are particularly subject to these parasites. Hence, these situations are more congenial to their generation, for the very reason of their being unhealthy; & hence to produce that state of the system, evidently favoring their production.

Many physicians have described epidemics of verminous fever; which according to Condie, is a fever of a gastric mucous, or bilious character, accompanied with a discharge of worms. Whether the fever was dependent on intestinal worms, or some other irritating cause, is a matter of difficulty to determine. Stokes considers their discharge rather as an effect, than their existence as a cause, of the disease.

& it may be remarked that Andrew rarely met with worms in the intestines of those who died of fever; & when met with considered them merely as an accidental complication of the disease.

That worms are capable of producing irritation few will deny; & if so, there can be no reason why they may not be a cause of fever; & where predisposition in atmospheric changes take place favoring their production, I can see no reason why ~~they~~ they may not be the source of an epidemic.

Though ignorant of the origin of these parasites, & nearly as of the part they perform in the animal economy; we still are acquainted with some of the causes favoring their production. Whatever tends to debilitate the general system, & more particularly the digestive function, forms the remote causes for their

accumulation. Hence too rapid growth; a strumous state of the system, sedentary, & inactive life; habitual exposure to a damp & confined atmosphere; unripe fruits: fat & farinaceous articles of diet: & it is the opinion of Dr Bremser that all esculent articles, containing an abundant amount of nutritive matter; & taken in unnecessary quantities, greatly favor their generations. Sugar has been thought to favor their production, but this opinion has been rejected by others. Sugar will if used too freely evidently debilitate, & derange the digestive organs & would from this alone rank as a predisposing agent.

Symptoms

From what has been before said it will be evident, that the symptoms of worms are many & equivocal: & they are in fact as diverse as the sympathies existing between the alimentary

canal, & other organs of the body;
& the only symptom as I have before
said invariably indicating their presence
is their discharge; notwithstanding all
this, there are many symptoms present
during the progress of the disease,
that would lead us strongly to suspect
them.— The countenance is usually
pale & lead colored. with slight flush
-ings of the cheeks: or a circumscribed
redness around them:. the nose is
irritated & sometimes bleeds:. there
is tumefaction of the upper lip:
occasional head ache: eyes dull
with a bluish ~~circle~~ line beneath
them: the tongue is furred or slimy;
the appetite is variable, with foetid
breath, & a gnawing pain at the stomach,
&, occasional nausea. & vomiting;
violent- twitchings in the abdomen, es
-pecially about the navel. the abdomen
is more or less tumid, bowels, sometimes

-mes costive; occasionally diarrhea, with a discharge of slimy mucous. The sleep is disturbed by startings, & grinding of the teeth; the urine is turbid, or yellowish; respiration sometimes difficult; with a dry convulsive cough. The temper is variable, generally irritable; the pupil occasionally dilated; & where as causes are present there is excessive irritation about the rectum, with tenesmus.

Of these the most infallible, are said to be enlargement of the pupil; a voracious appetite; inordinate secretion of saliva; emaciation; pricking sensation of the stomach; swelling & hardness of the abdomen; all these may however, be produced by other causes.

Many sympathetic affections usually of a nervous character have often been attributed to intestinal worms; such as: convulsions, chorea, hysteria, epilepsy, hydrocephalus, & many others, Brera

mentions where a lumbricoides in the bladder produced inflamation of the Kidney: another case is related by the same Author where arthritis ensued immediately on the expulsion of nine lumbricoides: other instances are related. "where they have found their way into the trachea, & thus caused the death of the patient"

Before proceeding to the treatment of an anomalous disease manifested only by symptoms of verminous irritation; it is important that our diagnosy should be correct, since mistakes are not of unfrequent occurrence, when one vermifuge has been given after another, producing no other effect than the aggravation of all the symptoms; & proving the entire absence of intestinal worms.

In such cases it would be advisable to abstain from all irritating vermifuges,

& direct our treatment upon the general principle of restoring healthy action to the digestive organs, & tone to the whole system.

In view of this, it will be evident that a regulation of the diet is of the first importance; avoiding all articles which irritate, & derange the digestive functions; & adopting those, which are indicated by the peculiar condition of the intestinal canal & system generally.

The patient should also enjoy a pure & uncontaminated atmosphere, & where circumstances will permit, exercise should be subjoined. Nothing is more frequent, than scrofulous, & weakly children, to be confined to hot, & unventilated rooms; debarred from all exercise out of a misplaced tenderness in their parents or nurses: & I may be allowed to say that nothing is so generally productive of mischief, as such treatment.

Children who are usually subject to
these parasites, are rarely disposed
to take much exercise; & the admonitio
-ns of the parents preclude the
enjoyment of the open air: but it may
be remarked, that nothing is better
calculated, by invigorating the system,
particularly the digestive functions,
to prevent the development of worms,
& the effects resulting from their presence,
than exercise in a situation where
dryness is combined, with purity of the
atmosphere. Where the worm
both frequently, repeated is of essential
benefit, together with frictions to the
surface, these rouse the dormant
action of the skin, equalizing the circul
-ation, & restoring harmony of action to
the whole system.

When however the attack is
of a more violent character, accom
-panied as it may be, with symptoms of

inflammation, it is important that we resort at once, to prompt & efficient medicinal agents.

In such cases, Dr Condie recommends before the use of internal remedies the employment of leeches, fomentations, accompanied by cool mucilaginous drinks. Observing, at the same time, that few cases occur, where we may not venture the administer calomel either in full doses, or in smaller & repeated doses, combined with opiac-uenha, & hyoscyamus. & he asserts that this when given in sufficient doses, varying with the age of the patient; not unfrequently produce a copious discharge of lumbricoides; & consequent alleviation of all the symptoms. Calomel has also been used not only as a purgative, but, as an anthelmintic; combined usually with Spigelia, & valerian & when given in small & repeated doses, it is often an efficient

remedy. Dr Eberle, however, considers it doubtful to produce ptyalism, which, if followed as it should be by an occasional dose of castor oil, & not continued for an unreasonable length of time, would be a rare occurrence, especially in children.

Among the numerous remedies resorted to for the expulsion of lumbricoides, perhaps, none is more efficacious than the oil of turpentine. This may be given, according to Dr Condie, in those cases, in which there is not only irritation, but an acute inflammation, without any fear of worsening either; & while it is the most effectual remedy for destroying worms, it is thought to produce a beneficial effect upon the digestive organs, & to aid in restoring them to a healthy condition.

It may be given in doses, of from 3ss. to 3j combined with, or followed by, castor

oil. Dr Condie however recommends it in smaller doses, as from xx to xxx gtt, upon a piece of sugar three times a day, and remarks "that it may be given in small doses with perfect safety, to the youngest child in which worms occur."

Another remedy upon which some physicians place much reliance is the Spigelia marilandica. This may be employed in decoction in proportion of ℥j, to a ℔t of boiling water, & may be given to a child from five to ten years of age, in the dose of from six, to twelve hours; preceded by a light diet; & followed by a dose of calomel & jalop, or, what some prefer, a dose of castor oil & turpentine, in the proportion of ℥ß of the former, to ℥j of the latter; given in doses, corresponding to the age of the patient. Dr Eberle, has much confidence in this remedy; & remarks that he has rarely failed, of producing the

discharge of lumbricoides, when this article was pursuingly relied on.

Many other anthelmintics have been employed for the expulsion of these parasites; & it may be observed, that there is scarcely an article of the materia medica, that has not been recommended in some form, for the expulsion of lumbricoides. from this alone, it might be inferred that they are usually removed without much difficulty.

Among the most effectual of these, are the Camphor, Garlic, chloride of sodium, Geoffroya inermis, oil of the Chenopodium anthelmintica, the prickly hairs of the Dolichos pruriens, & the Tinea helminthocardon.

This last has been highly extolled by some writers, who observe that it acts not only as an effectual antidote to worms, but at the same time materially aids in correcting the deranged condition

of digestive organs favoring their production. It is recommended in form of decoction, combined with valerian in the proportion, of ʒ; of the last to an ℥ of the former, this is boiled in a pt of water down to a gill, & may be given in doses of, from xx gtt to ℥ʒ varying, with the age of the patient

Whatever agent we may employ, it is often of importance that it should be continued for some days in order to ensure its beneficial action; & as soon as our object is accomplished by vermifuges, we should, by a proper attention to diet; & a careful administration of tonics, & other remedies indicated by the state of the patient; endeavor to restore healthy action to the system, & counteract that state which usually accompany; & follow verminous diseases.

In attempting the expulsion of the vermicular worms internal vermifuges are of little avail: & their entire removal is often a work of much difficulty. but the extreme irritation about the rectum produced by these parasites; especially at night, & the liability of their producing hemorrhoids, & other symptoms of a more formidable character; call for prompt & efficient remedies for their removal.

Among the vermifuges given by the mouth, perhaps aloes, ~~as the~~ by its action on the large intestines is the most efficient; & a persevery use of this article, accompanied by injections of lime water & milk will, according to Dr Eberle occasionally effect a raical cure. Many remedies in the form of enemas have been recommended for these parasites: among these

perhaps the most effectual are the oil of turpentine, camphor, assafoetida, Fucus helminthocortus, solution of sulphate of iron, & ether. This last is thought by some peculiarly efficient, as by its volatility it may pass the valve of the colon into the small intestines, from which, according to Prof. Ives, these worms migrate. Some physicians recommend enemas of tobacco; & formerly it was not an uncommon practice, for nurses to introduce a leaf of tobacco into the rectum of those, affected with these parasites. but it may be remarked that in children, especially, it is liable to produce dangerous consequences, unless, managed with the utmost cautions.

If, however, we pursue the general plan laid down for the other variety, obviating the immediate & pompful symptoms by Anthelmintic enemas,

we shall rarely fail in effecting a radical change in the digestive organs; & a consequent alleviation of all the worrisome symptoms.

XII.

Dissertation

On

The Modus Operandi of Medicines.

By

De Witt Clinton Lathrop,

of Franklin,

Candidate for the Degree of Doctor in Medicine.

On the Modus Operandi of Medicines

Medicines act on the living system by some change effected in its organs. An unusual impression is made on the nerves by which the action of the part is modified or changed. One organ seems to be susceptible to impressions of a particular kind, another, to those of a different kind. An article is brought in contact with the living economy, but all its parts are not similarly affected. The system at large receives only such an impression, as will, when reflected upon the kidneys for instance, so change the action in those glands, as to increase the quantity of their secretion; another article may produce a like effect upon the alimentary canal; another on the mucous membrane of the lungs; while a fourth may so affect the spinal marrow as to destroy the function of respiration.

The effects of Medicines are either local, that is confined to the part with which they are in contact, or remote, as when they affect an organ at a distance from that to which they are applied.

It is evident why an article should produce an effect on a part upon which it is placed, but the reason of its effects being manifested in a particular distant organ rather than in another is not so plain. For instance, it is not strange that Cantharis should vesicate the chest if applied there, but why the neck of the bladder should be irritated, does not so readily appear. It may be said that the nerves supplying that part are more susceptible to the impression made by this article than those of any other part, but the cause of this susceptibility can no more be explained than the vital principle itself.

If arsenic be applied to an external wound, it is said to produce all the general phenomena of poisoning, and the same local effects in the stomach as if swallowed. Extensive superficial burns reduce the force and frequency of the pulse, and so affect the whole nervous system as to destroy life—death taking place by asthenia.

These, and many other circumstances show that an article applied to a particular part of the living body may affect parts at a distance – indeed, the mutual harmony and correspondence of action exhibited in every part of the system, depends upon this intimate connection existing between the various organs. How only two channels exist through which this communication can take place. It must be through the blood by absorption, or the nerves by sympathy, for reasoning from analogy, nature is too frugal of means, to use both to accomplish the same end.

It is the peculiar office of the nerves to receive and convey impressions, while to the blood is appropriated a different function. There is no reason why the blood should assist the nerves by conveying substances to an organ distant from that to which they are applied, unless to render their effect more speedy or sure. That it is unnecessary for either of these purposes in <u>many cases</u>, seems conclusively proved by the effects of various mechanical injuries, and from the action of some of the poisons on the living body. For instance, a blow on the distended stomach sometimes causes instant death, and

post mortem examinations reveal no trace of any local injury. Magendie and others state, that pure Hydrocyanic acid when applied to the mucous membrane of an animal, will cause immediate death, by expending the irritability of the heart and voluntary muscles so completely, that they are insensible even to the stimulus of galvanism. The action of this poison, as well as that of some others is by far too rapid to admit of the idea of absorption, and if the nerves unassisted are capable of conveying an impression made on their extremities so speedily and effectually, to admit of any assistance, would seem to charge the Creator with works of supererogation, and if unnecessary in a case of such rapid action, I can see no necessity for it in any other.

No doubt substances are taken into the circulation and in this way are eliminated from the system, but that their absorption is necessary to enable them to produce their usual effects, seems to be contradicted by facts.

Although the action of many articles is sufficiently slow to admit of their being absorbed into the circulation, and carried by the blood to those parts upon

which they act, yet we cannot by the theory of absorption account for those which act more rapidly, or for the transmissions of impressions made by mechanical injuries, many of which closely resemble those made by medicines themselves. For example, Strychnos produces spasms resembling strongly those induced by wounds in tendinous parts. It is but reasonable to suppose that the same state of the nerves exists in both cases, because the phenomena produced are similar, hence the conclusion is legitimate that the medium of communication between parts is the same. It is not possible for the blood to transmit the impression to the brain in both cases, but it is easy to see, impressions made on the nerves, would by them be transmitted to that organ. If the agency of the nerves is sufficient to account for all the phenomena exhibited during the operation of medicines, why should we search further to discover an additional one? If the effects can be referred to a single cause, it is not sound Philosophy to suppose another to exist, especially if that cause is insufficient to account for all the phenomena developed.

The effects of many articles are not manifested until sufficient time has elapsed to admit of their absorption,

but it cannot be proved all such substances do enter the blood, indeed the evidence is strongly against such a conclusion. If the skin of the head be bathed in a strong decoction of Tobacco, vomiting will be produced, but no absorption of the article takes place. If a poultice be made with a decoction of Rhubarb and applied to the abdomen of a child, purging will be excited, but the most delicate tests will not detect the presence of the medicine in the urine. A person exposed to the fumes of Alcohol soon becomes intoxicated, although none of the article has been taken into the stomach. If a person breathes an atmosphere impregnated with the fumes of an infusion of Tobacco or Opium, all those effects will be produced which are manifested when these articles are taken into the stomach. Those who adopt the theory of absorption assert the pulmonary tissue to be equaled by no texture in the body, in facilities for absorption, and they thus account for the energetic operation of those articles when inhaled. But Dr. Beaman states as the result of numerous experiments, that the fumes of none of these articles will produce any unpleasant effects if inhaled for an hour, when the nostrils are closed, thus clearly proving the effects

to reach the brain through the medium of the nerves, and not by the blood, for it cannot be supposed that the article would sooner impregnate the blood by coming in contact with it in the nasal cavities, than in the pulmonary surface, especially if the latter is the best absorbing tissue. Opium too is found to operate more efficiently if dissolved in the mouth and slowly swallowed, than if taken directly into the stomach. This would seem to justify the conclusion that its efficiency here is owing to its being brought in contact with with a larger extent of sensible surface than if taken in a solid state.

But it is said that conditions of the system which are favorable to absorption, are also favorable to the action of remedies— that because depletion favors absorption, and increases the efficiency of remedies, it proves them absorbed. But depletion also renders the nerves more susceptible to impressions. The system in a state of health possesses a power of resisting morbid impressions to a certain extent, and depletion reduces this power of protecting itself.

It is also contended that the physical and chemical properties of medicines tend to confirm the idea of their being absorbed, & in proof it is urged that the energy of pal-

ticular articles depends on their solubility — that Arsenic and Morphia are more energetic if taken in solution than in a solid state: but it may with equal truth be said, it is because in a solid state much of the substance is inert, not coming in contact with a sensitive surface. These facts certainly prove as much in favor of sympathy, as absorption.

The experiments of Physiologists indeed prove that some substances applied to the body appear in the blood, but they have hitherto failed to prove the blood when freely circulating in the arteries, even of those animals affected with the most virulent poisons, is sufficiently imbued with it to destroy life in another, or indicate any symptoms of poisoning.

In an experiment of M. Verniere, where a ligature was placed about the limb of an animal sufficiently tight to prevent the venous circulation, but not the arterial, and the poison of Nux Vomica inserted in a wound in the paw, the blood drawn from a vein between the wound and the ligature, and transfused into the vein of another animal, excited in the latter all the usual effects of the poison, while the former it is said was not affected at all, if a sufficient quantity was drawn before the ligature was removed. But

then it seems that was not a per nervous communication, for it was prevented by the ligature, and this might be a reason why it did not act on the nerves, besides we know that a circulation of blood is essentially necessary to the action of the nerves, for if the circulation be prevented in a part for any length of time, the susceptibility of the part is destroyed. Pressure on the nerve also produces the same effect. But had the experiment been so contrived as to have allowed the blood to circulate freely through the system, and arterial blood taken, a different result would have been obtained. This is proved by an experiment quoted by Christison. The carotid and jugular vein of one dog was divided, and the ends of each reciprocally connected by proper tubes with the divided ends of the carotid and jugular of another dog, and extract of Nuxvomica inserted into a wound of the face of each of one of them, & this animal perished in the usual time, while the other remained, unharmed to the last.

But we are not confined to negative proof. If substances act by being carried by the blood, when introduced into the arteries which supply the organ upon which they act, they should be found to produce their effects

much sooner them when placed in those supplying a distant organ. But it was proved by Mr Morgan and Dr. Addison in some experiments on the actions of poisons, that the woorara poison did not act more speedily on the brain when placed in the carotid artery, than in the femoral, and what is still more to the point, they found if the jugular vein of a dog be divided between two ligatures and recommenced by a tube containing this poison, its effects were manifested as soon, when its entrance into the circulation was prevented, and only the ligature furthest from the heart removed, as when both were removed and the poison allowed freely to circulate with the blood. This experiment would seem to prove the failure of the poison to act in Bernard's on the inoculated dog, was owing rather to the effect of the ligature on the nerves, than on the blood vessels.

The experiment of Magendie, when the only connection between the poisoned part and the body was an artery and vein, whose divided ends were connected by quills, which is so often referred to as conclusive proof that medicines produce their remote effects by being absorbed, it seems to me is liable to many objections. It either proves that the

nerves are entirely useless so far as the action of medicines are concerned, or it proves nothing at all further than that the poison entered the blood. If the nerves of a part are destroyed, life in that part at once ceases, and as the circulation depends upon the vitality of the blood vessels, I cannot see how blood could circulate in a limb connected to the body only by tubes. But even this experiment, if allowed to be fair, does not prove that the effect of the poison on the brain was not transmitted by the nervous filaments expended on the interior of the blood vessels. That these parts are supplied with nerves, is evident from the the rapid action of the poison when confined in the vein in one of Morgan and Addisons experiments, and from one of Magendie's, when the divided extremity of the jugular vein was placed in contact with poison on a card & found to produce its usual effects.

I do not see how those who consider the absorption of a medicine necessary to enable it to produce its remote effect can reconcile this circumstances. Nor can I see what is gained by making the blood instead of the nerves the connecting link between distant parts, for even admitting some substances are conveyed from organ to organ by the blood, still their ultimate effects must be on

the nerves, or we must admit they produce a chemical change in the blood, which is evidently not the fact.

Medicines then must act directly on the nervous system, because if it is admitted that they are sometimes absorbed into, and pass with the blood, and thus effect organs at a distance from that to which they are applied, their effects are an impression on the nerves altering the secretions of the part in which their effects are manifested. No chemical change in the blood is effected directly by the action of Medicines. If any change is produced, it is through the agency of the nervous system altering the state of the parts concerned in its secretion, or we must allow health to be dependent on the state of the fluids, and a deviation from a healthy standard the origin of disease. But the source of disease lies beyond this. The state of the organs governs the quality and quantity of their secretions. If the organs are in a proper state of action, their secretions will be healthy. The secretion if unhealthy is the effect, not the cause of the disease. It is not the presence of serum in the cavity of the Peritonium that is the cause of Ascites, it is a state of disordered action of the absorbents, or secernents of the part, or of both— in short a want of due balance of action

between them. Besides, it is too cumbrous a theory to suppose the blood must in very case convey the medicine to those parts upon which its remote effects are manifested — it is too mechanical, and seems wholly unnecessary when the nerves are here for the very purpose of receiving and conveying impressions. Their local effects all must admit are produced by impressions on the nerves, and why is this intimate nervous connection between different organs, and parts variously situated, made for the very purpose of conveying impressions of various kinds to distant parts. Mechanical impressions they certainly must convey, and why not allow them the privilege of transmitting all those made on their sentient extremities? By what power are they enabled to distinguish between the impression made by a blow, and that produced by aconite? An excessive dose of opium produces coma, so does a violent blow on the head. Is it possible to point out the difference between the changes wrought in the nervous system by these agents? Indeed is it not probable that the state of the nerves is the same, when the effects produced are identical? How shall we account for the action of this article at all, if it is carried by the blood into the brain, for it is

acknowledged, even by those who contend for the necessity of its absorption, that when applied directly to the substance of the brain, it produces no particular effects? Is this difference to be accounted for by the degree of dilution effected in the blood, or to the agitation it receives on its way?

These circumstances seem to justify the conclusion, that Medicines produce first a local effect on the nerves of the part to which they are applied, which if sufficiently powerful is transmitted to the brain, and thence reflected to the part most susceptible to the particular impression produced, that although some articles may enter the blood and perhaps pass with it to those parts on which they act, yet this is not indispensible to enable them to produce their remote effects.

W. Mott Clinton Lathrop

XIII.

Dissertation
on
Phytolacca Decandra.

By
Joseph Josiah Meigs,
of Madison,
Candidate for the Degree of Doctor in Medicine.

Phytolacca Decandra.

Poke weed, Cocum. Julap. Cancer weed Skoke. American Night Shade &c.

As an investigation of the indigenous plants of our country cannot but be interesting to the medical practitioner. I have chosen as the subject of my remarks This article of our Materia Medica If there is one class of articles which have greater claim to the attention of the practitioner than another. Surely it must be that class which nature has bounteously spread out in his vicinity & which he can obtain and use without the fear of finding his article adulterated.

In the investigation of any article we are apt to commence our examinations with minds prejudiced in its favor also to overrate its virtues & ascribe to it properties & virtues which it does not possess Consequently when it is used by the practitioner being disappointed in his expectations he abandons the article & erases it from his list of remedies thus depriving himself of an article which might be indicated in a variety

of instances & used with advantage Not only this but other evils have arisen in consequence of such investigations which need not here be enumerated. Such has been the case of numerous of the articles of our Materia Medica.

In the following examination it has been my endeavor to shun this evil & not to ascribe to this article any vertues or Medicinal properties other than my own observations or the authority of those who have faithfully prescribed the article would warrant.

For convenience I have divided the examination of the article into 3 divisions 1st History & Botanical discription.

2nd Chemical Analysis

3d Medical properties & uses.

The first regular account which we have of the Medicinal properties of this plant was communicated by Cor Colden of N York to Linnens. In the year 1640 it was introduced into Great Britain In 1795 Dr Shultz of Philadelphia published a dissertation upon this article. He made various experiments with the article upon dogs & other animals. These experiments were made with the leaves he also others relating to its use as a dye. but I find no

account of his testing its properties upon any human being.
In 1817 Dr Hayward made a variety of experiments with the plant
& entered into an investigation of its properties with more can
than any of his predecessors. Drs Barton & Bigelow also followed
him. The former thinks the virtues of the plant overrated
& that many virtues are ascribed which few are possessed.
I have never had an opportunity of seeing the works of
the latter writer, but understand that he has a correct &
beautiful Chemical analysis of the plant. Its properties
are said to have been known to the Indians.

Botanical Discription.

The Poke weed is an indigenous
plant with a very large perennial root often 5 or 6 inches in
diameter divided into two or three principle branches.
These are soft, fleshy, fibrous, whitish within with a brownish
Cuticle. The Stems which are annual grow to the height
of from 5 to 8 feet & divide into numerous spreading branches
These are, round, very smoth, Color green when young but
purple after the berries have ripened. Leaves. Scattered Oval.
Oblong, Entire, Pointed. Smoth. Ribbed beneath & supported
on short footstalks. The flowers are numerous small &

grow in long racemes, which are sometimes erect & at-
others drooping. The Corolla consists of 5 ovate Concave petals
which fold inwards & are of a whitish color. The germ is
green. Stamens ten & the same number of pistils. The racemes
of flowers become a cluster of dark purple shining berries
flattened above & below & divided into ten cells each
cell containing a seed.

This plant grows abundantly
in nearly all parts of the United States, flourishing
by fences, borders of woods &c but preferring lands
newly cleared. Much has been made dispute amongst
botanists respecting the nativity of this plant as it is found
growing in great abundance in the North of
Africa & South of Europe & upon this question where these
men are more learned than myself disagree I shall not
attempt to decide. This plant flowers in July & August
& the fruit ripens in Autumn. The size of the plant its
large rich leaves with its clusters of ripe berries Contrast-
ing as they often do with the flowers & unripe fruit upon
the same branch, render this one of the most noble of
our native plants. & when once seen cannot be easily
forgotten

Chemical Analysis.

The Stems & leaves of this plant contain both an acid & an alkali. The acid resembling the Malic. The alkali is the potassa. It is almost obtained from the ashes of the dried leaves & stalks not less than 42 per Ct of pure Caustic Potasse. They also Contain Gum. Resin. & Extractive matter. in Considerable quantity.

The berries contain a beautiful purplish red Coloring matter in a large quantity. The author above quoted found when this juice was combined with a few drops of lime water that a yellowish fluid was formed which was a very delicate test for the presence of an acid. In his comparative experiments respecting the sensibility of Litmus paper & this Yellow fluid. He found that ¼ of the quantity of weak acid was required to change this color to its former purple which was necessary to redden Litmus paper. This liquid must be pressed a short time after making as it changes so speedily. Many attempts have been made to convert this purple color to a useful article as a dye. but as yet no mordant has been found with which to make it permanent.

The berries possess a certain portion of Alcohol. which may be obtained by distilation

A Cold infusion of the root was made & filtered when it was submitted to the following reagents or tests. The color was a light brown. Litmus paper. Iodine Tinc & Many of the Vegetable Colors were destroyed upon mixing them with the infusion With the Prot Sulph Iron no precipitate was produced. Neither could I perceive any change in the appearance of the infusion. This proved that it contained no Tannin or Gallic acid. A quantity of Alcohol was added to the infusion which gave a precipitate showing the presence of Gum.
To the Alcoholic Tinc of root I added water which also gave a precipitate showing that it contained Resin.
I treated a portion of the infusion with Sol Sub Acetate Lead which precipitated the Gum & extractive matter &c it was then filtered the excess of lead precipited by Sulph acid again filtered & Treated with animal Charcoal a third time filtered & evaporated slowly. toward the end of the evaporation a very small quantity of light brown Chrystals were formed. The quantity was so small that I had no opportunity of testing its virtues either chemicaly or medicinaly. Thus we have evidence that the Phytolacca contains Gum Resin & Extractive matter, also a peculiar Chrystaline principle. By Nitric acid I discovered also that it contained Fecula. I also formed an extract from the decoction which is of a dark brown color & appears to posess all the properties of the infusion.

In the course of the experiments precipitates were had with Fine Iodide Ferri which was a dark brown. Also with Acetate Lead Bi Chloride Mercury Tart-Antimony. Nit Silver. &c.

The above experiments are acknowledged to be imperfect - as they were made during a course of lectures & at different times as I had opportunity. Also My knowledge of Chemistry was so imperfect - that - I could not be expected to find the definite proportions of each even if time had permitted. Therefore I have according the best of My opportunity & ability given you a general outline of the Chemical Nature of the plant - hoping that some one better qualified than myself will finish what - I have but just begun.

Medical properties & Uses.

Almost all writers upon the Poke ascribe to it properties as an Emetic. This property appears to be in all parts of the plant. Some have used the pulp-leaves & Stalks whilst others prefer the root. I think that the last mentioned most deserves our confidence. Barton, Beglow & some of the European writers affirm that this root is in common use amongst the practitioners of ~~the~~ New England as an Emetic But from inquiry I find but few who have ever used it in their practice as an emetic & it appears to be the opinion that owing to the uncertainty of its operation it is a dangerous or to say the least an unpleasant remedy: therefore they prefer not to exhibit it. It appears that most of those who have discovered the dangerous & uncertain nature of its action as an Emetic have used either the Juice of the root or the powdered leaves. The Juice of the root does not contain all the active principles of the plant & consequently cannot be as efficacious. Some have used the infusion, but this does not seems to contain but a part of the principles of the Phytolacca & we can depend upon no part with as much certainty as the pulp root. The Juice of root has been given in such quantity

as to equal ℈ji of the root. In some cases it has produced emesis & in others none. again of a saturated tinc. 5 gtt produced powerfull emesis. The pulv leaves have been given in the quantity of ℈ji also but their operation was slow as was the case the tinc. Dr Hayward who made many experiments to prove its Emetic property exhibited the pulv root in doses of 5 grs in one case. 10 in the second 15 in a third & in these cases found as might have been expected that the increase of quantity likewise increased the certinty of the operation. 5 grs produced no visible effects. 10 grs produced one or two evacuations. 15 grs acted both as Emetic & Cathartic. but no less quantity than ℈j was to be depended upon. He gave the powder in the dose of ℈j to 30 persons & it failed but once in performing it proper effect. In all these cases it acted efficiently & speedily commencing its operations within the hour & ceased within from 3 to 5 hours generaly in that time operating 5 or 6 times, He observed no unusual or disagreeable effects to follow its exhibition. As an Emetic it differs from most of the articles now used as it produces little or no nausea before its operation The effect upon the system is powerfull. It has been

proposed as a substitute for Specac, but it cannot be used in all the cases in which Specac is indicated, owing to the slowness of its operation & the Cathartic power which is closely connected with the emesis. Still in some cases it might undoubtedly be substituted for some of the emetics now in use with decided advantage. In the forming stage of fever its tendency where an emetic was indicated would be to break up the fever. Dr Taypard administered it in the dose of 3ß as the commencement of a severe attack of fever. It operated powerfully for 5 hours when no febrile symptoms remained. As Both Emetic & Cathartic it is to be administered only where an Emetico Cathartic is indicated. As these properties appear to be combined. But acting as it does with energy, it may be often substituted for many of the articles now used. For by ~~obtaining~~ substituting this we may obtain the operation of both emetic & Cathartic within the ordinary time. True its operation as an Emetic is slower than most others but its Cathartic operation speedily follows & we derive benefit from both within the hour. This may be safely administered without fear of its narcotic effects as most if not all of those who have used the root have never seen any such effect follow. After the operation of an Emetico Cathartic there is generaly some kind of

drowsiness or Stupor following probably the effect of Mastication & this has been taken advantage of by those who wished to control the delirium Tremens when Opiates had failed & why might not this ~~property~~ be indicated under the same circumstances.

Their is also much diversity of opinion respecting the Narcotic property of the remainder of the plant: But I see no reason for doubting the assertion of those who affirm that they have discovered this property to be present in the leaves & Stalks & berries Dr Shultz found the pulv leaves to narcotize a dog. Several Physicians whilst administering this plant for Rheumatic affections in form of Tinc of Berries have noticed that the patient complained of vertigo. I of Does informed me that he was once consulted by a lady for vertigo & ~~could~~ attributed it to the Tinc of berries which she was taking at that time for Rheumatism. The narcotic property is said to resemble the Solanums & Stramonium hence its name Solanum Racemosum Americanum & S. Magnum.

It possess some alterative properties when given in small doses & has been used in diseases of Syphilitic origin as well as others indicating an alterative treatment, with benefit.

Rheumatism. This plant has been esteemed by many as a very valuable remedy in this disease. Dr Barton thought that he had seen more benefit derived from the use of this medicine in this disease than any other remedy. He preferred it to Guaiacum & exhibited it either alone or in combination with Mercury in some of its forms. Many of the practitioners of this city have given the Phytolacca in this disease & speak favorably of its effects. Dr Chas. informed me that in one case he gave it in form of Sat. Tinc of Root. It produced an Emetic cathartic effect & by following with alterative doses. a cure was speedily effected This case had resisted the usual remedies as. Guaiacum. Colchicum. Actea &c. Another case occurred in which it was taken in form of infusion & acted vigorously. The quantity administered is not known as the patient drank of the infusion until he was satisfyed as to its Medical properties. He thinks that he derived benefit from its use.

Syphilis. It has been asserted that owing to its alterative properties this plant is a valuable remedy in this disease. But Dr Barton whilst he acknowledges that it has often proved serviceable in Syphilitic Rheumatism, denies its efficacy in this disease & asserts that had it possessed any such property (being known as it was by the Indians) this disease would not have committed such ravages amongst them as it did in his day.

In this case as in many others we are told that the Indians used this plant & knew its value but here information ceases & we are called upon to admit that they possessed a correct knowledge of the plant & its medicinal virtues, whilst we are in utter ignorance as to the part of the plant used or its mode of administration.

A gentleman residing in North Guilford of the name of Hill has often prescribed this remedy with success in Sy. Philip. He does not pretend to have discovered this remedy himself but was informed that it possessed alterative properties by a Regular Practitioner in Louisiana who was in the habit of giving it in the same Complaint & from the speedy manner in which a cure was performed he was led to exhibit it to others

I have known several cases in which he has used the root (~~with success~~) when the disease had been of a long standing. I have never known him fail of effecting a cure. He gives either alone or in connection with Hydrarg in some of its forms. A Lat Linc of the root is made with gin of which a wine glass full is given after each meal.

I have in one case of Secondary Syphilis ordered the ung made of the powdered root ℥ij ~~to~~ Lard ℥j to be applyed to the ulcer. I saw no more of the patient untill 3 weeks had elapsed. when I found that the ulcer was cured & she stated that she did not have to apply the Ung but a few times. This case had resisted the usual applicatons as Sol ~~Corrosive~~ Sublimate &c.

Indolent ulcers of other kinds may undoubtedly be cured by this Ung. & it has been recommended by some writers, though their Ung was prepared from the leaves.

It was once considered by some practitioners as a remedy for Cancers & it undoubtedly obtained its reputation from the fact that Indolent ulcers are sometimes mistaken for Cancers. & whilst we cannot believe that it is an efficacious remedy in Cancers we must admit that had it not cured

Some disease resembling them it would never have been held up as a specific in this disease. So that while we refuse to recieve it as a remedy for Cancer we must admit that this is an argument in favor of it Utility in the treatment of Ulcers.

Sinea Capitis. Dr Burton in his Materia Medica speaks of of the Poke as an ineficient remedy in this disease. But Dr Hayward used an Ung made as before discribed. He had the head of his patient shaved & washed thoroughly & though the case had resisted every other application both in this Country & Europe for the space of 12 years. Yet it soon yielded to this remedy; The effect appeared to be different in this case from most others for though the parts were extensively ulcerated yet no pain or smarting occurred when the Ung was applyed. Though I find no other case recorded yet the success attending its application in the above mentioned case leads me to infer that it is a remedy deserving the notice & attention of the Medical Practitioner.

Garget.

It is probably owing to the efficiency of the plant in the treatment of a disease affecting cattle called the

Garget- that the plant- derives this name. I have inquired of many respecting the nature of the disease & but-one was able to give me any information. This was a gentleman from Vermont. He said that-it-was a disease affecting the cattle in his neighborhood & that- the Symptoms were a loss of appetite a loss of action in the muscles of the hind leg the Skin over that-part- is loose & flabby. The mode of treatment- is to make an incision through the Skin insert-a piece of the root- of Phytolacca close the part- by means of Sutures. After a few days Suppuration commences & when the abcess is opened the creature speedily recovers. I tried to obtain an account- of this disease as seen by some Medical gentleman but-was unable to do it.

Thus I have given you an imperfect- account- of the Poke its principles & use. I have not- endeavored to overrate its virtues or instance cases of cure unless I gave the authority. & if it- possesses the properties & power which I have ascribed to it- it- is too valuable an article to be neglected & claims a share of the attention of each practitioner.

XIV.

Dissertation on Croup.

By

Edwin Avery Park
of Preston,
Candidate for the Degree of Doctor in Medicine.

In approaching any essay on any department of anatomical or medical science I can but feel my incompetence to produce anything new or instructive or to throw any additional light upon subjects where such splendid luminaries have exhausted their resources, from my limited observations and want of experience in the incipient and progressive stages of diseases, in their symptoms their arrest and cure, I can only promise myself and others to glean from the various fields of investigations, and to collect and embody some of the facts which others have explored and brought to view as landmarks to guide the mind in its benevolent researches for the benefit of humanity.

Among the various diseases to which children are subject there are non more distressing in their character or fatal in their termination than the Croup. It is a disease which has received various names at different times and in different places. On the eastern coast of Scotland

it was called the Croup on the west the chok-
or stuffing; while in other parts the rising of
the lights, and by others a species of asthma
attended with acute and violent catarrhal symp-
toms. Among the modern authors we find
it described under the names of asthma infan-
tum angina suffocativa morbus strangulatorius
trachitis infantum Cynanche trachealis etc

The name Croup from its long use is prob-
ably the best name that can be employed

As the pathology of this disease is now
much better understood, a very great improve-
ment in the treatment has rendered it less fatal
than formerly. The various statements
at different times and places go to confirm the
fact of the improvement in the treatment and
in its adaptation to the nature of the symptoms

It is questioned by some whether this disease
was known to Hippocrates Galen and other
ancient authors; but as the same causes existed
then as now we have every reason to conclude
that it has existed at all periods and among all people

It has been found among the aborigines of our country, prevailing with great severity and fatality

According to Dr Gregory we find the first regular history of this disease in the letters of Martin Ghisi; by others it is considered and we are indebted to Dr Francis Home of Edinburgh for a clear full and practical account of the character of this disease. Perhaps there is no disease in which Physicians have spent more time and in which more talent has been engaged in its investigation and in which such great diversity of opinions of the nature cause and treatment, as of this disease, which is doubtless in a great measure owing to a variety of circumstances arising from difference of climate mode of living &c. Some able writers consider this entirely as a spasmodic disease while others consider it as inflammatory.

At this present day it is considered that there is unquestionably a variety, which arises from a spasmodic affection of the epiglottis, as in some fatal cases no traces of inflammation have been found.

Unquestionably there are two varieties of this disease the one is a spasmodic affection of the epiglottis, and the other an inflammatory condition of the trachea, which doubtless constitutes the disease in the greatest number of instances.

This disease it is generally admitted is peculiar to childhood; and is more frequent in infancy or before the fifth year.

The instances in which it occurs in adults are so exceedingly rare as to be regarded as curious instances of departure from the almost uniform law which appears to control its formation. It is the opinion of M. Guibert that various anatomical and physiological circumstances concur in rendering the croup more frequent in infancy, and in giving it its distinguishing characteristics; the straightness of the wind pipe and of the glottis, the great sensibility of the mucous system, the difficulty of expectoration which favors the accumulation of mucus the activity of the circulation, the intensity of the symptoms, the rapidity of their progress the abundance

of matters furnished by the secretions and excretions, and of the mucous secretions of the air passages the pliancy and softness of the skins texture, the light clothing worn by children, their independence in exposing themselves when in perspiration. Another predisposing cause is in the manner of clothing children with necks and breasts bare. In Germany where children are clothed with their throats entirely covered, this disease seldom appears. This disease is found at all seasons of the year but is more prevalent in autumn, winter and the early part of the spring when there exists a damp and chilly state of the atmosphere, peculiar for the production of inflammatory disease. The most common exciting cause is a sudden exposure to a current of air blowing directly on the child after great fatigue; or by any exposure, whereby the cutaneous perspiration is obstructed and the aerial passages to the lungs are obstructed and excited to undue action. This disease makes its attacks in different ways; its most common form is with

Catarrhal symptoms; the child is at first observed appearing fretful weary and a general uneasiness with feverish turns followed with cold especially at night. A teasing cough with a mucous discharge from the nose which usually lasts for some days; or until an exposure to cold and damp or the sudden application of any of the exciting causes brings forth some of the more alarming symptoms as difficult inspiration with in case of cough without expectoration. At other times it makes its attack in the most alarming manner without scarcely any premonition.

When its attack is thus sudden it places the life of the patient in an extremely critical situation and requires to be speedily arrested in its progress. In whatever manner this disease makes its appearance, the incipient stage is considered the one in which it may be treated in a more successful manner than any other. By writers on this disease, it is usually divided into three stages as the most convenient for detailing the symptoms, and as a guide

For the treatment. This disease in its first commencement is purely local, the irritation not extending to other parts of the system.

It will be recognised in its commencement by hoarse and difficult breathing, in which the inspiration is heard, giving a sound at times resembling the clucking of a fowl, and at others like the crowing of a young cock. The cough which accompanies this stage is frequent of a hoarse, ringing sound. When the child is asleep at the time of the attack it wakes suddenly and is in great distress; often passing its hands to the throat which fully indicates the location and cause of its sufferings. In the growing stage there are frequent intervals of relief in which the child breathes perfectly natural as in health. The second stage is characterised by the symptoms of suffocation increasing, the face swollen and red, the surface of the body hot, the pulse strong and frequent the tongue white with symptoms which indicate increased local inflammation, with general febrile action.

The difficult. of respiration has no intervals of relief, - the brain becomes apoplectic in Plethoric children, from the arrest of a free circulation of the blood through the lungs. After renewed attacks of this disease the symptoms are more intense, and frequently return for several successive nights; and if not arrested with appropriate remedies the violence of the disease increases and as it approaches the third stage the cough sometimes ceases a retching attended with a glairy mucous discharge in the efforts to vomit.

A momentary relief is sometimes experienced the pulse still indicating the continuance of febrile action, and the voice remaining hoarse.

The application of the stethescope is recommended as useful at this stage in ascertaining the progress of the disease. The third stage is characterised by effusions into the tracheae bronchiae, and on the surface of the lungs; which in the trachea is of membranous appearance.

When these symptoms appear the cough is extremely distressing, the respiration very laborious, which

is attended with a whistling sound that may be heard at some distance. The face is much swelled, with a dark livid hue, the eyes suffused and prominent, and the carotids beat with great force, the gums become pale and white, while the tongue is frequently blackish as if the blood was retained in it by ligature, the mouth dry; the child drinking with great eagerness. The disease continuing its progress a sense of immediate suffocation is so intense, that every position is instinctively sought for relief; for the most part the head is thrown backward extending the trachea and increasing its capacity. The child struggles more violently than ever for breath, the pulse intermits, the body is covered with a cold perspiration, the limbs cold and swollen, and the circulation fast failing.

The countenance is now anxious beyond expression; the eyes become most piercingly brilliant and beseeching and coma and convulsions close a scene of the most heart rending distress the eye is ever called to witness

It is not difficult when taking into consideration these three stages of the disease, to estimate the danger to which the Child is exposed. In the first stage when the disease is purely local, attended with cough, there is but little danger; but when the respiration becomes laborious attended with the other symptoms which are characteristic of the second stage, it is evident that the larynx is inflamed, and requires prompt relief, or it will rapidly pass into the third stage or stage of effusion. Dissections exhibit the signs of active inflammation in the trachea and bronchiae, the mucous membrane is found red and covered with an exudation which is of a tubular form and solid in the trachea, and fluid and albuminous in the bronchiae, and sometimes fluid is found filling the cavities of the lungs, and in cases of long standing the lungs have been found hepatised. In those cases which are suddenly fatal after the disappearance of the violent symptoms, a closure of the trachea takes place

from a partial detachment of the false membrane forming a sort of a valve closing the passage to the lungs. When taking into consideration the symptoms and postmortem appearances of the disease, there can be no question as to its active inflammatory character.

It is the general and prevailing opinion of writers on this disease, that the first or forming stage is the period when the strongest impressions can be made, and the progress of this most distressing affection at once arrested. When the importance of decisive measures is considered, and that the successful treatment of this disease altogether depends on the adaptation of remedies to the existing state of inflammation, the practical advantage of recognizing different stages in this disease is obvious.

In the incipient attacks of this disease to restore a healthy action and secretion to the affected part, some recommend warm and stimulating applications to the throat and neck such as spirits of turpentine, or mustard and

vinegar, and if necessary, repeating these applications, and in connection with these the hive syrups, as an expectorant and if necessary carrying to an emetic effect, and should the hoarseness continue continue the use of the syrup and in aid of the general intention if the bowels be confined to administer a dose of Castor oil, regulating the diet and keeping the patient in an atmosphere of moderate temperature, covering the the throat with flannel after the mustard or turpentine has been removed. By others in the incipient stage an emetic is the most efficient and indeed only sure means of arresting it at once; The tartar emetic as a general rule is the best for accomplishing this object, when there is no danger of a general prostration of the vital powers which it sometimes induces. In such cases combining it with ipicacuanha sufficient to procure free and full vomiting and in case from a feeble constitution where the use tartar emetic is to be feard a combination with the squills is recommended to excite an action

in the mucous membrane of the air passages different from the diseased action.
The bowels ought at the same time to be made by Calomel aided in its operation by Castor oil or an enema. When the disease has advanced to the second stage or that of active inflammation the abstraction of blood is recommended in proportion to the age and vigor of the child. Dr Ferrier Dick Chapman and others carrying the abstraction of blood even to syncope Dr Eberle recommends bleeding as far as it can be carryed when the patient is in a sitting posture with his feet immersed in warm water, until partial syncope is produced in those cases of the most violent inflammatory character indicated indicated by an active firm and tense pulse with fever. Some practitioners recommend where local depletion is necessary cupping between the shoulders or leeches to the throat. Dr Rush considered Calomel as the main resource in managing a case of croup and so great was his confidence in

the efficacy of Calomel in this disease as to consider it as certain a remedy as Cinchona bark in intermittent fevers. Dr Hamilton of Edinburgh considered Calomel as one of the most powerful remedies in Croup, and unless given in very large doses no relief whatever can be obtained from it having given to a child of seven years one hundred and thirty three grains in sixty hours, and to another of two years one hundred grains in twenty four hours. Blisters are important remedies; they may be placed over the trachea; between the shoulders, on the arms or on the upper part of the chest with much benefit.

When the violence of the inflamations has been subdued, and a Croupy Cough continues, the Polygala senega is recommended as having a salutary influence as an expectorant; care being taken to preserve a suitable warmth to the surface by proper clothing of flannel bathing the feet in warm waters, and carefully avoiding exposure

In the third and last stage characterized by the formation of a deciduous membrane, which more or less fills the trachea, or in the pouring out of a quantity of purulent lymph extending even to the minute ramifications of the bronchiae the breathing continuing laborious attended with a cough which threatens immediate suffocation, the natural indications of treatment seems to be to remove if possible the membranous exudation and to restore and maintain a healthy secretion in the inflamed part. In the treatment of this stage all practitioners seem to agree in the stimulating class of emetics being the most important remedies, but still some difference exists as to which of that of remedies promises the most benefit.

By some the saline or antimonial emetics are considered the most efficatious while others the polygala senega as promising most giving this strong decoction until it produces an emetic and cathartic effects; by this means the two fold advantage will be obtained of procuring an evacuation of the morbid secretion and exciting the

mucous surface to a new and altered action. Among the other remedies which have been successfully used for the expulsion of the membranous formations are the sulphate of zinc and copper given in strong solution which have resulted in detaching the membranous formations and successfully relieving the patient.

As a last resort when all measures of a medical nature have been unsuccessfully tried the desperate resource of tracheotomy has been advised and in some cases practiced but generally without success.

C. A. P. B.

XV.

Dissertation on Apoplexy.

By

Seth Pease,

of Canaan,

Candidate for the Degree of Doctor in Medicine.

Apoplexy.

By the term Apoplexy is understood an affection of the Brain, giving rise to a sudden deprivation, more or less complete of the functions of sensation Voluntary motion & of the intellect — while those of respiration & circulation still continue, though generally with diminished vigor.

In many cases the invasion of apoplexy takes place suddenly — while the patient is apparently in a state of health — Yet in numerous instances particularly in a first attack, it is preceded for a longer or shorter period by certain premonitory symptoms, which indicate the existence of more or less irritation & congestion of the Brain.

Among the precursory symptoms may be enumerated pain & a sense of weight & fullness in the head — Vertigo — ringing in the ears — flushed face — a turgid state of the Jugulars — throbbing of the Carotid and Temporal Arteries — occasionally impaired

vision – double vision – imperfection or loss of hearing – impaired powers of articulation – weakness of memory and judgment – a sense of numbness and formication in different parts, particularly in the extremities.

These symptoms (and others which might be mentioned) do not invariably precede an attack of Apoplexy – and many of them may exist without the supervention of any such disease; but where an individual complains of several of these symptoms, especially if he be of a full habit, with a short neck and in the decline of life, he may be safely pronounced to be in immediate danger of an attack of Apoplexy.

This disease may vary much in intensity from the slightest, where the loss of sense and voluntary motion is transient, to the most severe, where there is an entire prostration of functions, and the patient is in a profound state of Coma from which he never recovers. Three different ways

have been pointed out in which this disease is apt to come on. In the first - the patient falls down suddenly deprived of sense and Voluntary motion and lies like a person in a deep sleep - his face generally flushed - breathing stertorous - pulse full and not frequent and sometimes below the natural standard. In some of these cases convulsions occur; in others rigidity and contraction of the muscles of the limbs; sometimes on one side only.

In the second form, the patient experiences suddenly a deep seated pain in the head - tremors of the limbs - confusion of ideas with palor of the face - vertigo and nausea or vomiting. These symptoms are soon followed by a state of insensibility; the patient being attacked, as it were with Syncope. From this, he recovers after a short period so as to be able to converse and perhaps walk about - but still complains of pain in the head - vertigo and confusion of mind. In the course of a few hours he sinks gradually into a state of complete -

apoplectic stertor. It may come on in a third way by the patient becoming suddenly affected with a paralysis of one side of his body, attended with loss of speech - pain of the head - vertigo and dullness, or confusion of ideas; but the sensorial powers and consciousness still remain. By degrees however these become extinct and a state of profound coma finally ensues.

During the fit the face is commonly of a deep red or livid hue and puffed up or swollen - but in some instances however it is pale and the features appear shrunk. In most instances the pupils are dilated; but may frequently be found contracted. The respiration generally soon becomes stertorous; but occasionally the breathing is perfectly natural. The presence or absence of stertorous breathing does not appear to furnish (as some writers have supposed) an invariable indication of the intensity or mildness of the attack. In many patients the breathing is very laborious, and

yet complete recovery quickly ensues; while in others an almost natural state of the respiration may accompany, which rapidly terminates in death. The pulse generally full and slow; may be weak quick and easily compressed. The Bowels are commonly torpid during the continuance of the fit but occasionally involuntarely discharges of their contents may take place, in consequence of a paralytic affection of the Sphyncter. The Urine which is frequently discharged involuntarily may be retained from paralysis of the Bladder.

The duration of the apoplectic stupor varies from a few hours, to many days. Death may occur in a few hours without the patient recovering from a state of Coma.

In this case the stupor becomes more and more intense; the pulse small, irregular & frequent and the respiration slow, short and interrupted by long intervals. Cases of instantaneous death from Apoplexy are extremely rare, life being seldom destroyed before

the termination of three or four hours. When the case terminates favorably the symptoms slowly and gradually abate, and the patient finally regains his ordinary state of health; or as more frequently happens, the stupor disappears entirely, but the muscles of one side of the body, or of a particular part remain paralized and may either continue in this condition for life; or under appropriate treatment regain gradually their powers.

A disposition of recurrence follows attacks of Apoplexy: many survive a considerable number of slight attacks; but the most severe commonly prove fatal on the second or third occurence. There may be several causes which predispon to this disease.

It seems to be generally allowed that it is a disease of advanced life, not occurring before the fortieth or fiftieth year. No age is however exempt from it, but in young persons it is most commonly induced by what may

be termed Mechanical causes; or it comes on in them gradually & not as in those of more advanced years by a sudden & unexpected stroke. Hippocrates has laid down the period between the ages of forty & sixty as that when the occurrence of the disease is most frequent, & Cullen considers it of more frequent occurrence after the age of sixty than previous to that period. It is said to be an hereditary disease and those whose ancestors have suffered from it are considered to be more liable to an attack. A particular conformation of body is generally considered a predisposing cause. Those persons who are of a plethoric habit of body; with a large head short thick neck, florid complexion broad shoulders, low stature, ample chest and a general inclination to Obesity are considered as those most predisposed to Apoplexy. A sedentary and inactive life, with a full nourishing diet and too great indulgence in sleep and a change

from an active and laborious to a quiet and indolent life are well known predisposing causes. Disease of the Cerebral vessels is a very common circumstance of predisposition, & also diseases of the Chest which materially & injuriously influence the circulation in the head give rise to this disease. The cessation of habitual discharges - the drying up of old sores. the healing of long established issues & setons and all causes having a tendency to occasion plethory may be said to generate a predisposition to this disease.

The exciting causes of Apoplexy may consist in anything which is calculated to hurry the circulation & increase the force of the hearts action whereby the Cerebral vessels become engorged and thus compression or rupture of the vessels may take place, giving rise to extravasation. Temporary obstructions of blood in the lungs and its being re-

-tarded in the veins in its ~~rotations~~ return from the head when the predisposition exists will often be sufficient to excite the disease. Straining at stool when the bowels are costive and strong bodily exercise - lifting heavy weights - playing upon wind instruments &c will commonly in persons thus predisposed excite a fit of apoplexy.

Post mortem appearances generally show engorgement of the Brain & its membranes, or the effusion of blood or serum. The effusion may exist without any lesion; or with ruptures or disorganization of the brain. The latter is said to be the most common appearance.

The remedies which experience seems to have shown to be the most efficacious in the treatment of Apoplexy are bleeding general & local - cold applications to the scalp - counter irritants to the extremities & surface of the body - purgatives & Blisters

with such other means as are calculated to abate or remove the Cerebral irritation or congestion. Previous to the employment of these means; When called to a patient laboring under apoplexy, it will be proper to loosen or remove all such of his clothing as may be supposed capable of compressing any part of the body — more especially the neck, chest and abdomen —; the patient at the same time should be placed in such a position as will have the least tendency to prevent the free return of blood from the vessels of the head and be removed with the least possible agitation to a large and well ventilated apartment and placed with his head and shoulders very considerably elevated.

In addition to these measures it is strongly recommended by some writers to cover the head previously shaved with cloths wet with ice cold water, and at the same time to immerse the feet in hot water, or to apply frictions with some stimulating liniment

over the whole of the lower extremities.

Bleeding is a remedy which the experience of ~~the~~ most practitioners prove to be one of the most efficacious means we possess for the cure of Apoplexy. When employed at a sufficiently early period of the attack it will frequently very promptly remove the congestion of the Cerebral vessels and often preserve the substance of the Brain from rupture and disorganization. That this is a remedy which admits of being abused there can be no doubt — but that the objections which have been raised against its employment in apoplexy by a few writers, and its restrictions by others — depend upon views purely hypothetical there seems to be much reason to believe.

The concurrent evidence borne in favor of the good effects of blood letting by the great majority of Medical writers whose opinions on practical subjects are the most deserving of respect — the symptoms by which this disease is ordinarily accompanied — the morbid state

by dissection
of the Brain revealed, & the fact that spontaneous and copious hemorhage from the nose lungs and hemorhoidal vessels have either prevented the occurrence of the attack when the most unequivocal symptoms of its approach have been present; or completely removed the disease when it has occured — all would seem to press upon the attention of the practitioner the importance and necessity of blood-letting in the treatment of this disease. Whenever therefore the attack is recent and occurs in a plethoric habit, accompanied with a full active pulse & more especially when we have symptoms of undue determination of blood to the vessels of the head — blood should be abstracted, & carried to such extent as may be demanded by the emergency of the case.

When the indications for general blood letting are not so strongly marked the topical abstraction of blood by means of cups may be resorted to.

In this promptly

abstracting blood a due regard should certainly be had to the age and constitution of the patient and the state of the pulse. Cold should be applied to the head of the patient as already adverted to and simultaneously counter irritants should be applied to the lower extremities.

Purgatives should be administered so that a free & copious discharge from the bowels should take place at as early a period as possible. In severe cases when it is difficult perhaps impossible to cause the patient to swallow any medicine an active purgative enema should be administered and repeated at short intervals, until a free evacuation from the bowels is procured. As soon as the patient can be made to swallow a full dose of some active purgative should be given. The bowels should also be kept in a lax condition so long as the disease continues by the judicious administration of of purgatives at proper intervals. After

proper depletion by the Lancet and cups, much advantage may be derived from the application of Blisters to the nape of the neck between the shoulders, or on the inside of the thighs or legs. Frictions have been strongly recommended as well during the Comatose stage as subsequently. Dr Abercromby speaks of their good effects. They may be made with the flesh-brush or with the hand over the whole surface of the body.

With regard to the means that may be employed to prevent an attack of apoplexy perhaps little need be said. That in a majority of cases the disease may be warded off by a prudent attention to diet and regimen admits of little doubt; and even after a predisposition to it has been acquired this may be destroyed by the same means in addition to such remedies as are calculated to reduce the plethoric state of the system and counteract the tendency in the brain to irritation and engorgement. Without a cause

observance of those necessary regulations respecting the patients diet and regimen & avoiding as far as practible all predisposing causes, no benefit from any prophylactic treatment can reasonably be expected. Lancisi very justly remarks that we search in vain for a preservative against the attacks of disease in the operation of Medicine, when we neglect the rules of a rational hygiene.

Then those whose form & habit of body predispose them to apoplexy & who are actually in danger of an attack - the most scrupulous care should be observed as regards the quantity and quality of their diet. It should be at all times spare and composed chiefly of vegitables. Their drink should be water. They should rise early & retire and use daily a considerable amount of exercise. taking care to avoid undue fatigue and exposure to extreme cold or intense heat & all close or prolonged application of mind & every ~~~~ excitement of the passions.

As preventative measures, frictions of the surface of the body - cold sponging of the head & the preservation of a regular state of the bowels are well worthy of attention & indeed from their importance should be resorted to. Care should be observed that the clothing be loose and especially should all ligatures about the neck chest & abdomen be cautiously avoided.

Caution should be observed with respect to checking any chronic discharge from the body, if any exists, wether of blood, pus or serum. As permanent drains from the system - the insertion of an issue or seton in the back of the neck, will be found in many cases highly useful, in relieving the state of plethora.

XVI.

Dissertation
on
Man's Physical Adaptation
to the
Natural World.

By
Frederick William Perry,
of Lacon, Illinois,
Candidate for the Degree of Doctor in Medicine.

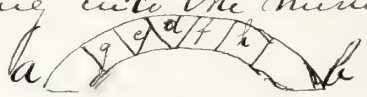
The beautiful adaptation of means physical system to the natural world

Being by nature endowed with those faculties that exalt us above mere organic beings and which enable us to comprehend not only simple existences but those of a more intricate and complicated nature it becomes a noble exercise of those faculties to discover the means and ends involved in the structure of a being so wonderfully constituted as man. It will not be my object in the consideration of this subject to treat of his intellectual nature through which he is so highly distinguished from the rest of creation but to point out some of these beautiful peculiarities of structure which are so well fitted to answer the wants of a terrestial existence - This subject has been considered not unworthy the attention of many of our ablest scholars and almost infatuated is that student who in the mere threshold of his studies would expect to add laurels to his brow in the discovery of what had escaped him of a more acute observation - Such is not my intention but if by the observations of others together with a few

of my own — I may present such a production as will answer the demands of this institution, my highest aim will be attained — In our survey of man the most striking peculiarity that first attracts our attention is his habitually erect posture, in this he is assimilated to no other animal except in a slight degree to the Species Simia, and this similarity is less in a state of nature, so that we may truly call it a peculiarity of man one that completely distinguishes him from the rest of animate creation one that gives him a noble mien a graceful bearing and commanding aspect and leaves still exalted above the subjacent form, the nobler principle of our existence the abode of the mind and the soul, without which we could claim no higher origin or nobler destiny than the brute which perisheth. But even this would have been defective had not the same wise artist provided for the brain ~~as~~ delicate and highly organized structure — a sufficient defence A casement strong in the union of its component parts and made still stronger in a structure involving some of the most important laws of mechanics supplies this defence. Thousands of years pass by before the mighty sustaining power of the arch was discovered and that thinking

principle which finally discovered and applied it to the works of art was through reading ages protected safe and unharmed by its influence. — How many of our most beautiful and desirable edifices owe their beauty and strength to this structure — And many are there who while gazing in admiration upon the lofty arch that throws its expansive arms from shore to shore from cliff to cliff wondering at the magic spell that holds its massive weight like a gossamer upon the empty wind — forget that in themselves exist the first ensample — How necessary such a protection is the brain to perform those rapid and perfect vital operations by which the system is stimulated into action — must be of such a delicate and highly organized structure that the slightest depression of the walls of the cranium or projection of spicules of bone would produce spasmodic paroxysms congestion coma and perhaps death. As a test of the strength of this structure we may observe the immense weight borne by many of the European peasants upon their heads not only without injuring the cranium itself but without affecting their natural intellect. Another striking example may be seen in the egg It will bear a

longitudinal pressure between the palms of the hands of the most powerful man without being crushed. Here the power of resistance is due in but a slight degree to the cohesive power of the shell but to its construction which receiving the force applied to the arches of the egg the pressure is conveyed nearly equally to each part. The principle may be easily understood by a rough diagram without going into the minutia of precise calculation



Suppose an arch A. B. composed of blocks d. e. f. g. h. and each weighing 20 pounds. The first block d, divides its weight upon each adjoining block and its perpendicular force meeting with complete resistance in the next block is converted into lateral ~~force~~ giving to the block. E the force of 30 lbs. A perpendicular line then being drawn through the block. E from the corner of the block G. it will be seen that two thirds of the 30 lbs - or 30 lbs - is conveyed directly to the block G by the law of gravitation leaving but 10 lbs to be supported by the cohesive power of the block, Being supported this 10 lbs unites with the 20 lbs, to be conveyed to the next block Thus it will be seen that each following block, sustains the combined weight of all the preceding blocks

There are some other indications to be fulfilled and the most important is a firm base to resist a certain amount of lateral force which is conveyed to the terminating extremities of the arch. This is beautifully supplied in the cranium- The extremities of the arch being bound by transverse ridges and planes of bone extending from side to side, in continuation from the brain we find an organ not less essential to the functions of life and from its great extent and exposed locality requiring a little more beautiful and ingenious contrivance for its defence. Perhaps a less skilful designer would have adopted several different constructions to fulfil the object to be attained in this region of the body. In the first place we need a firm support, 2ndly that support must be so constructed that various kinds of flexion and extention may be made without injury to any part 3dly This support should be so constructed that while it affords attachment to muscles remote from its centre so as to increase and economize their power- there should be no increase in the weight of the column, 4thly A canal firm and smooth without angle or joint with gentle curves and equable motion for the support and defence of the spinal marrow-

"This last indication could not have been more neatly and conveniently fulfilled than in the instance under consideration. A separate canal might have been constructed but if with the same durable substance it would have been with a waste of material and a more complicated and difficult movement. If of a lighter and softer material as of a membranous sheath, so delicate a structure as the spinal chord exposed to the action of foreign substances would have left us but a trifling security against sudden death or what is still more dreadful the slow undermining action of these organs the throbbing of arteries the action of muscles, or the movements of the alimentary canal, would act upon the delicate nervous sensibility till — Soft and slow

A drowsy death creeps on the expanding soul
Oppressed and smothered the celestial fire

Benumbed of its sensibility and checked in its action the channel of the vital forces would be shut off leaving the extremities of the system to dwindle and perish to take on a loathsome living death — Again by this construction the amount of flexion and extention necessary to answer the conveniencies and graceful movements of the frame are not inconsistent with the

delicate structure of the Spinal Cord - Nor is a great
movement at any one point required that its supporting
muscles and tendons would be injured by undue action
but each separate vertebra with its proper attachment
rendering its small quota towards the combined action
of the whole forms the perfect column. We also find that
when the vertebral column is flexed forward throwing
its apex beyond its base, it loses much of the support
that derives from the natural equipoise of the parts
but the deficiency is made up by the interspinales muscles
being brought to act at right angles with their attachment
And to counteract undue flexion and extention on every
side are attached strong muscles that act as braces to
steady and regulate the whole. Column to add ingenuity
to ingenuity a fine and elastic cushion is placed between
each vertebra which acts at the same time both as a pivot
to assist the graceful curves and rotations of the back
and also to obviate any injurious or unpleasant shocks
that the system may receive in walking running or
jumping. Who would it not have been an improvement
if this support of the body had been made in the form
of a broad sheet of bone extending the whole width of the back?

of the most obvious reasons. In the first place it would have allowed of no lateral motion and secondarily the same weight of bone would not have possessed near the same amount of strength as may be instanced in the common straw which will present double the resistance in its entire state than it would when spread into a plain surface. If a cylindrical form is then so much stronger why should not the whole circumference of the body have been thus formed and those parts of the abdomen that are now supplied with elastic muscles and fascia have been firmly encased in a bony covering as the brain? But here again the merest novice may supply an answer. A variety of difficulties would arise, the power of flexion would be entirely lost and our stiff ungainly forms would seem but a slight remove from the cold unmoving statue that lacks but life to be a man. Even though our strength might be increased our exposure to injuries would be proportionally greater, for with an increase in the power of resistance we could not have the same ability to yield before the blow and like the supple ash, escape the raging tempest that writhes and breaks the sturdy oak, from its firm foundation

A fatal blow would pierce our frame at a battle vessel and traitor like transfix with pointed darts those vital organs It was made to shield another indication is fulfilled which no other construction could so beautifully supply. From the almost constant operation of receiving and digesting our food, the cavity of the abdomen is subjected to continual change in the volume of its contents, and were no elastic envelope supplied to accomodate itself to the contents of the abdomen we should be exposed to many injurious and perhaps deadly influences In the absence of food a vacuum would be produced which acting as a cupping glass would produce most fatal congestions. The abdominal viscera would be much endangered by getting about. Knots would be found in the intestines for want of sufficient compression to preserve them in their appropriate places. On the contrary food being supplied if to an undue extent pressure would be made upon the circulatory hindering digestion and the nourishment of the parts and at the same time producing congestion in some other part of the system The nerves would also receive a pressure

which would be prejudicial to their vital action The office of gestation could not be performed Thus the whole chain of our existence from our conception and birth till our arrival at maturity would be broken up and destroyed. Proceeding upward we find another arrangement in the structure of the thoracic cavity and its firm frame work Here we have need of the production of a vacuum that was to be avoided in the former instance but instead of being dependant upon the absence of food it should be so constructed that a uniform contraction and expansion should take place without liability or possibility of interruption A muscular sheath would not have allowed it on the one hand nor a bony casement on the other but a combination of the two with a peculiar arrangement of bone and muscle provides at once the desired action and at the same time affords a defence for the vital organs situated within the thorax. The alternative elevation and depression of bony arcs situated obliquely to the vertebral column inducing expansion and contraction of the chest allow

of the ingress and egress of air to fulfill certain chemical and vital operations that the system requires. These movements carried on by the vital action of muscles were not yielded to our control but wisely reserved in the care of that power that never sleepeth supply the breath of life with unfailing exactitude every moment of our existence but if consigned to our own management the first freak of passion or negligence the first period of sleep would expose us to certain death. This wonderful arrangement is dependant upon a system of organs to which we have merely adverted without describing their office. I mean the nervous system and of its office alone can we form any just estimation. Its mode of action is yet locked in mystery and who can say that this is ever to be ascertained by human researches, or that he who ventures to pass behind the veil may not meet the fate of him who ventured to look upon the glory of the Deity. But we may not the less admire and wonder at the beautiful perfection in the arrangement and functions of the nervous system. Firmly encased within the heart of the citadel and

assisted by the outworks of the ganglionic system
it receives and transmits orders to the remotest parts
of the system, receiving intelligence notice of any
danger without or derangement within, imparts
new life and vigor to weakened parts assist in
the elaboration of nourishment and warmth and
presides as it were over every function of the body

We have as yet said nothing of those parts of the
system appropriated to locomotion and the various
manual operations which our relation to surrounding
objects requires. It will be very far from truth to
say we have come to any simpler or less beautifully
complicated structure than we have already dwelt
upon. We have parts which perform double triple and
compound actions we have bones of the first second
and third variety We have pullies and joints that
never rust or wear out, actions as true as the magnet
to the pole as precise and delicate as the movements
of a watch, and as varied as the steps of heaven
of the hand it has been remarked by an eminent
philosopher that it alone would distinguish man
from the brute creation and we may add that

without it even the natural intellect would cease to grow. The history of the past would have been left locked in the dark recesses of oblivion. The arts and sciences would never have been cultivated and a desolate and dreary waste would have extended the length and breadth of the Land. Where now we have beautiful groves and splendid mansions with the Endearments of home. And man like an ancient Jewish King being driven forth with the beast of the beast of the field would eat grass as oxen and his body be wet with the dews of heaven till his hairs were grown like Eagles feathers and his nails like birds claws. We have merely glanced at a few of the striking peculiarities of the human structure without going into minute and delicate operations that would require more than our sagacity to explain but even now the question arises when will this subject end? When will finite wisdom penetrate through every Labyrinthian channel of the system and say this for this and that for that were formed. The Eye the Ear the nose the mouth, each come in to supply an essential office in the perfection

of the system One a window from whence the soul looks out and takes cognizance of the external world surveys the forms size colour distance and arrangements of objects - discerns exposure to danger and finds when the glorious light of the sun. The delicate and varied structure and colours of flowers. The towering trees the majestic mountains and the infinite heavens! true food for the Godlike soul. Happy is he who mourns not with the Poet; "But not to me returns Day nor the sweet approach of ev'n or morn Nor sight of vernal bloom nor summers rose Nor flocks nor herds nor human face divine But cloud instead and ever during dark Surrounds me and from the cheerful ways of men Cut off and for the book of knowledge fair Presented with with an universal blank Of natures works to me expunged and razed And wisdom at one entrance quite shut out"

The ear is another medium through which the mind holds intercourse with the external world and also calls forth our wondering admiration at its delicate organism and the exactness and rapidity with which

it seems the most delicate and roughest sounds
swelling alike among the sweet notes of the Eolian
harp and the thunders of the battle field. Thus each
sense of sight hearing smelling and tasting opening
avenues to supply enjoyment to our Ethereal natures
presenting sentinels to warn us of the approach of
any danger combine to form a perfect whole to which
nothing could be added or from which nothing
could be taken without detriment to the whole
Thus throughout our system each organ subserves
its ordained part, each performs its ~~ordained~~ allotted
action, forming a being so wonderful in design
so complicated in structure and yet so beautiful
that angels may wonder and admire —

XVII.

Dissertation
on
Hydrocephalus.

By
Samuel Wolcott Skinner, B. A.
of East Windsor,
Candidate for the Degree of Doctor in Medicine.

Writers have differed more in regard to the propriety of the nomenclature generally adopted than in the nature and treatment of this scourge of our earlier existence. While some have considered Acute Hydrocephalus as in nowise differing from the Encephalitis or Meningitis adults; some that it was identical with serous apoplexy; others have maintained that it is an idiopathic disease. That the latter opinion is the more correct appears evident from the nature of the causes which operate in its production. That the disease under consideration is an inflammation of the brain cannot be well denied, and therefore the Antiphlogistic might be applied, but the nature of these inflammations is very different, and hence the propriety of some discrimination in the nosology. This difference seems to consist in the fact, that the inflammation

in Hydrocephalus is the Scrofulous inflamation.
while in Encephalitis this rarely if ever exists.
and for this reason. that while during infancy the
brain is from its irritability more disposed to the
scrofulous inflamation, this irritability in the progress-
ion of life is changed to various parts of the system
in very regular succession, and scrofula manifests
itself accordingly; in the joints as in morbus coxarius
in the shaft of bones as in necrosis, and in the lungs
in the form of tuberculer phthisis. The peculiar
nature of the scrofulous inflamation as existing
in these several diseases, is in many respects
similar. It is characterized by its chronic
form, by its debilitating effects upon the con-
stitution, by the absence of acute pain, by
its stages of suppuration and ulceration being
unhealthy in their progress, and finaly by
its obstinate resistence to therapeutic measures.
The morbid anatomy of hydrocephalus exhibits
the nature of the disease. Softening of the brain
usually confined to certain portions, but sometimes
of the entire mass, and an effusion of Serum

within the Ventricles, and between the Meninges are the result of the diseased action, while pure healthy pus, which is an important feature in the pathology of Encephalitis is not present; but the pus which does exist, is of a peculiar kind, and marks the unhealthy progress of the inflamation, and its tendency to a fatal termination. In Acute Hydrocephalus the effusion is not to be considered the cause of the disease, as some have asserted, and supposed it to be dependent upon debility, and that tonics and stimulants were indicated in its treatment, but this effusion is evidently the result of the inflamatory action pre-existing in the organ and to which the attention of the practitioner is to be directed. That softening and effusion might and do follow as the result of debility, and inanition is true. Softening may result from defective nutrition; the cerebral arteries failing to supply the proper stimulus for its support, and a derangement of the cerebral circulation caused by diminished arterial excitement

would produce an effusion in this way: as the quantity of blood within the cranium must be nearly the same, from the mecanical causes which operate to prevent much diminution of the circulating fluid, the head being as it were a hydraulic machine, and the contents of its vessels sustained by pressure, any escape causing a vacuum which must be filled by compensation, the change, if any, must consist in the relative proportion of the fluids. If then owing to a feeble action of the heart and arteries, the quantity of arterial blood be diminished, the quantity of venous blood must be increased to supply the deficiency; and as the veins are considered to possess the property of expansion of serum when distended and the absorption of serum when empty, and thus be possibly more effective in producing dropsy than the lymphatic system, to whose excessive or defective absorption this disease has been attributed, a dropsy of the brain may be produced as

the result of debility. Dr Marshall Hall has written fully on this latter disease, and denominated it a Spurious Hydrocephalus. Perhaps it might with more propriety be called a true hydrocephaloid, and we will name it accordingly for what is now termed the acute. The diagnosis between these two diseases is not difficult, from the history of the case. The age, strength, and general appearance of the patient will often be sufficient, taken together with the symptoms present, particularly those related to the circulation, the temperature of the extremities, and color of the surface. While in one the extremities are cold and the face pallid, showing a feebleness of capillary circulation, in the other the opposite symptoms are present. The importance of a correct diagnosis here is immense as the treatment is so widely different. The predisposing cause of hydrocephalus is the strumous diathesis, usually hereditary and fostered by a residence in an unhealthy locality, and by imperfect nutrition.

Hence the disease is much more common in our large cities than in the free air of our country villages. The exciting causes are various. Any irritation either from mechanical violence or the more obscure effects of constitutional disturbances are prone to produce the fatal malady in one predisposed. The strong sympathy existing between the head and alimentary canal has induced some to assert that hydrocephalus is not an idiopathic disease, but is always sympathetic of a disturbance of the digestive organs, and may be cured by attention to the latter, but the theory is likely to lead to fatal results by the inertness of the practice. The existence of scrofulous tumors frequently found in the brain on dissection prove the disease to be idiopathic in many instances at least, and the lesions discovered in the stomach, liver, and intestines are no matter of wonder considering the consent between the parts. Even allowing that the derangement of the digestive organs first made their appearance, and

the head affection seemed to follow sympathetically, yet the sympathetic affection has far outrun the primary disease, and so far as the treatment is concerned, it may be considered as idiopathic, inasmuch as the removal of the former is inadequate to subdue the latter. Also when direct violence can be ascertained to have created a sufficient exciting cause the symptoms are so similar as to warrant the belief that a like inflammation may be produced by a different irritation, and the effect of remedies justifies the conclusion. From the light of dissection it seems probable that scrofulous tubercles are the irritating cause in very many instances. Too early exercise of the intellectual functions is undoubtedly prejudicial to one predisposed, and it is not uncommon to notice a remarkable precocity of intellect existing in connection with the strumous diathesis, while other parts of the system are deprived of that nutrition they at this time of life so much require.

Hydrocephalus may be most properly divided into two stages. 1st stage of excitement. 2d stage of collapse. Some writers taking the symptoms as they present in many cases have made four. 1st stage of irritation. 2 increased sensibility. 3 diminished sensibility. 4th paralysis. But as these vary considerably, sometimes not being well marked, and at others irregular, the division into two stages according to the pathology existing within the cranium appears the least objectionable. The first or stage of excitement indicates the inflammation of the brain. The second or stage of collapse the result of that inflammation. The symptoms of these two periods are in most cases distinct. After several days of precursory symptoms, more or less according to the acuteness of the attack, as uneasiness and restlessness, more or less pain in the head, loss of appetite, irregularity of the bowels and other symptoms of derangement of the nutritive functions. The cerebral affection increases, the patient perhaps awaken

from an unusual sleep with a peculiar cry and complaints of severe head-ache. This pain, commencing in paroxisms, occurs at less and less intervals untill it becomes constant. The head is hot externally and the pupil of the eye contracted. The disturbance of the digestive organs increases, with vomiting, torpor of the bowels and unnatural stools. The tongue is coated with a white fur, the pulse is frequent and sharp. These symptoms are those of inflammation but of inflammation modified by its peculiar nature. The fierce, wild delirium of encephalitis is not present, nor is there that remarkable intolerance of light and noise, although these do exist to a certain extent. The disease is more insidious in its progress and still more fatal in its results. Even the prognosis may be considered more favorable in proportion as the disease assimilates itself to the ordinary inflamation of the brain in the adult subject. The duration of this stage varies from two days to a week,

and is of the utmost importance in reference to the treatment, as it is during this stage that remedies must avail if at all. The second stage is denoted by an irregularity of the pulse, which is usually slow, but liable to variation from slight causes. The cerebral symptoms mark the progress to disorganization. The pupil is dilated, most probably from the loss of sensibility in the optic nerve, the result of the softening, though perhaps in some instances, from the pressure occasioned by the effusion. An oscillatory motion of the pupil has been considered by some as a pathognomonic symptom of hydrocephalus, but it does not always appear to exist. The eyes are turned up and inward for the most part of the time, while they occasionaly revert and with a vacant stare, and soon assume their former position. A general torpor and insensibility pervades the system. The respiration is oppressed, and paroxisms of convulsions heighten the painfulness of the scene. A tonic

contraction of the [illegible] may be observed, and has been represented as pathognomonic of the disease, but it appears to exist in some other affections. A partial sweat moistens the trunk, the extremities are becoming cold. The pulse now increases in frequency, is small and feeble, denoting the last effort of nature to counteract the termination which is now at hand, and may be attended with convulsions or a gradual decline of the hearts action. Some of these symptoms, as is the case in other diseases may be [illegible]. The pulse in some instances may be frequent throughout the entire course of the disease. But the diagnosis is not difficult after the disease is fully formed. The only source of error is met with at the commencement, where it is liable to be mistaken for common infantile fever, or a derangement of the digestive organs. The treatment of acute hydrocephalus does not differ much from

that required in other phlegmasial diseases, and must be vigorous in proportion to the acuteness of the attack. From the nature of the inflamation, and from the fact of its occurrence in the young subject, it would appear that depletion by the lancet is not always advisable. When the disease is clearly the result of considerable external violence, or approaches to the character of ordinary active inflamation, general bleeding may be unhesitatingly resorted to, and carried to that extent the symptoms seem to indicate; but in the majority of cases the application of leeches seems preferable for the counter-irritation they produce, while at the same time they deplete sufficiently. In the treatment of scrofulous inflamations in other parts of the system, cow-vaccination is of the highest benefit, and in the case under consideration its application is of much importance, for the excitement is reduced by blood-letting. Revulsives are also beneficial; as the constant

application of cold water to the head while hot, by means of wet cloths which should be frequently changed, or they become worse than useless. Cold affusion has also been practiced with advantage. Purgatives from their derivative effect in cerebral affections and from the costiveness and torpor of the bowels which is a prominent symptom, seem clearly indicated, and calomel from its effect in subduing inflammation and promoting absorption has been most generally recommended. If the above theory of the nature of the disease is correct, the former of these effects must be the principal one of avail. and in proportion as the inflammation is of the adhesive kind. Hence in the majority of cases, especially those dangerous, insidious, and most chronic forms of the disease, the specific effect of mercury is not [illegible] as a purgative and alterative of the secretions of the alimentary canal, it may be of the highest utility, but [illegible] to [illegible] as some have recommended it must be a

dangerous agent as the result of mercurial ptyalism in other rheumatoid diseases sufficiently shows. [illegible] to the notice of the profession for the treatment of this disease [illegible] and experiment, viz. the iodide of potassium. In some cases reported, it has been given in the last stages of acute hydrocephalus, when stupor, and coma and paralysis had existed for some time, and the usual remedies had failed to produce any good effect, and its exhibition was followed with immediate success. It seems probable that after the excitement has been moderated by the usual antiphlogistic means that this [illegible] its exhibition does not interfere with other treatment it appears worthy of a trial. The rapid progress of the disease must however in too many instances prevent the salutary effect which might be expected from this agent considering the [illegible] to the [illegible].

Blisters in the last stages act favorably as counterirritants and derivative. Also mustard paste to the chest in oppressed respiration, and to the extremeties when the circulation is languid. In this as in all other acute diseases stimulants may be required in the last stages, after the inflamation shall have been subdued, and the system left in an irritable state and debilitated state, as shown by the feebleness of the circulation, and coldness of the surface. When the pulse from being slow and oppressed, becomes small quick and frequent, the cautious use of opium and ammonia seems to be indicated, and may perchance save the patient. The prognosis in acute hydrocephalus is always extremely doubtful. The disease obstinately resists the most judicious treatment, and the inflamation which were it of the ordinary kind must often have been subdued by these vigorous measures, persists in its course to a fatal termination in opposition to the best means yet devised for its prevention.

[illegible]

XVIII.

The Valedictory Address on the Qualifications of the accomplished Physician.

By

Nathaniel William Taylor, B. A.
of New Haven,
Candidate for the Degree of Doctor in Medicine.

The Qualifications of the accomplished Physician-

The Traveller on some difficult enterprise, as he leaves a familiar path for one unknown and dangerous, is wont to pause upon some little eminence, and contrast the ease & safety of the road he has just traversed, with the intricacy and ruggedness of that on which he is about to enter; while he asks himself with no small anxiety, whether the slight experience which he has thus acquired, be sufficient to guide him amid the difficulties and dangers of that which is to come-

Thus would we, (Gentlemen of the Graduating Class,) about to leave these pleasant seats of learning, now linger for a moment, before we go forth into the difficult & untried ways of the world-

However imperfect may have been our habits of study, however pleasant the associations of youth- however worthy of praise, or deserving of censure has

been our former conduct, all our actions henceforth are to stand the severe scrutiny of the world – the foibles and the follies of youth are to give place to the more sober duties of manhood –

The heart of the Philanthrofist, the Patriot, and the Christian turns instinctively towards us, as members of a highly honorable profession, which involves no common responsibilities –

The occasion then would seem to demand, that we devote a few moments of the short period which may yet be called our own to at least some slight reflection upon the qualifications which the accomplished Physician should profess –

"He who announces himself a licensed candidate for medical practice, gives a pledge to the world, that he has acquired that knowledge in each of the departments of medical science, which is a sufficient basis for public confidence; and which qualifies him to assume his peculiar guardianship of the lives of his fellow men – A perfect knowledge of the structure of the human body – of the various ravages

and alterations in this structure produced by accident or disease — of the causes which originated them — the symptoms to which they give rise — and of their remedial management, is necessary to constitute the Physician; these are qualifications which are indispensable to him as a Physician; but there others of a different nature, without which he can hardly hope to attain to what we would strictly term a respectable standing among his Medical brethren —

His peculiar duties bring him into intercourse with men of the greatest diversity of character, business and condition of life — So all of these he is expected to administer the blessings of his art, and thus he may exert an influence for good or evil ~~that~~ which will be felt in the whole community in which he may dwell — How indispensable (therefore) is it to his success that he should have the faculty of adapting himself in his manners & conversation to the various feelings & opinions of the different classes among whom he is thrown. How important is it that his intellectual attainments should render him a meet associate for the Divine

and Politician - his refinement of manners an acceptable companion for those in the higher walks of life, - his compassionate & gentle deportment a welcome visitor in the abodes of affliction -

The Physician should be a constant student & a general scholar; His studies must not stop with the possession of his degree; but keep pace with the advancement of those sciences which go hand in hand with medicine. The idea of continuing in a beaten path, is not the offspring of a free mind, - nor the servility of treading, only in the footsteps of those who have gone before us, the achievement at which it aspires - Science with its manifold blessings to the world, would never have advanced to its present state of perfection, had men like Bacon and Newton been contents with the legacies of ancient philosophers - He who acquires knowledge from his own observation and experience alone, has a small fund for the exercise of his talents, compared with him whose mind is stored with the accumulated wisdom of ages - Where is the system, we would ask, professional or

empirical, from which the philosophic enquirer cannot cull something useful?

Advancement in knowledge as it increases and extends the light of truth, will serve to dissipate the clouds of imposition; and the false doctrines of those ignorant pretenders of the healing art, against which the licensed practitioner has so often to contend - He should aim at nothing less, than by laborious study, and tasking all his powers of acquisition, to elevate the character of medical science, and thus impart a greater dignity to the profession of which he is a member; thus, not only, will he strengthen his mind, but he will be amalgising treasures of knowledge, which once gained, will far surpass in value all other acquisitions, as they cannot be taken from him, or depreciated by the vicissitudes of fortune. By the cultivation of his faculties of attention and memory, with the proper discrimination in the selection of his ~~reading~~ studies, he will the more successfully prepare himself for that correctness of thought, & that decision of action, which are of the highest value at the bedside of his patient.

Nor is the science of medicine to be regarded as one fruitless of all farther discovery; nor are the pretensions & hopes of those who do not consider it as absolutely exhausted to be treated only with derision. The present improved state of the science may well stamp with infamy the boasted pretensions & artifices of quackery. It should forbid rash innovation and a reckless course of experimenting on human life; but it should not lead us to suppose, that it does not still present a rich field of discovery to the diligent and laborious enquirer.

The mere practical man, as he delights to call himself, or, in other words, one who knows & wishes to know nothing more, than falls under his own narrow sphere of observation, fortunately for science rarely rises to distinction. Both the public and the profession itself, have long discerned, that for one man, who by his own unaided experience, arrives at anything like eminence, an hundred remain for ever in an inglorious mediocrity. and all recognise the fact, that he, who would become a safe and conscientious practitioner, must be a constant & an indefatigable student.

While keeping pace with the advancements of the Sister Sciences the Physician should seek to acquire a knowledge of the operations of the human mind- Its influence upon the body in disease is so much greater than in a state of health, as to render such knowledge quite as necessary as an acquaintance with the "modus operandi" of medicines-

As finite beings we can never solve the problem ~~of the problem~~ of the mysterious agency of mind upon matter; but so manifest to every one is the influence of the depressing & exciting passions, of sorrow & fear, of joy & confidence, upon the corporeal frame; so clearly do the various expressions of the countenance portray the emotions & sensations of the individual that they merely require to be mentioned-

An acquaintance with these effects will be of little value to the Physician unless he possess a knowledge of the source of those affections and sympathies of the mind, which exert both a favorable & an unfavorable influence upon the body- To examine these relations,

and to mark their varied results, as it is one of the most profound, so it is one of the most interesting & important studies connected with our science- A disordered mind may be the original cause of a disease under which the whole body labors; and this it is which so often defeats the skill of the Physician, unaccustomed to observe its workings, he seeks in vain for the location of the disease, and applies remedies which are of no avail while the cause continues to exist-

So also long confinement to the sick bed by some bodily infirmity, with its tedious days & nights of pain and restlessness, with their dull monotony, has a tendency to agitate the mind with fear, or sink it in despondency, so that it in turn reacts upon the body, and thus enables the disease to baffle the most judicious practice- It would be interesting as well as profitable, to trace this connection farther, but enough has been said to illustrate the practical importance of a knowledge of the influence of the mind upon the functions & structure of the body, and of the peculiar manner in which it governs the action of medicinal agents-

With the profession of high intellectual powers, and a knowledge of the mutual sympathies of mind & body, the Physician should cultivate habits of patience and perseverance. How often will he find it necessary to listen to the uninteresting & unimportant details of the sick - how often will his powers of endurance be tasked to the utmost in harkening to their whims & caprices; but to all of these, he must submit, not only with an unruffled temper, but with the most imperturbable composure & enduring patience.

The fretfulness & irritation which long confinement occasions, may be increased to the great injury of the sick, by the want of endurance on the part of the Physician - If his questions are not proposed in a tone or manner which correspond with the situation of his patient, they will, of course, augment the turbulent excitement which already exists in the functions of his system - Patient enquiry, with a persevering habit of attention are absolutely indispensable, to give that tact & judgment which will lead to a correct opinion of the precise pathological condition of the body, while laboring under disease - Haste or

impatience in the conduct of the Physician is not only an obstacle to the proper discharge of his duties, but it is undignified, it is disreputable, it is unphirical.

The practice of medicine is well calculated to promote the cultivation of those finer feelings of the soul, which are so much needed by the accomplished Physician. Nothing is more erroneus than the commonly received notion, that familiarity with scenes of pain and misery, steels the heart against sympathetic emotions. Nothing more absurd than the opinion, that he who would make the relief of human suffering, his profession, should acquire indifference to those sufferings which it is his business to relieve. Would not the Philanthropist who dispenses daily charity in the miserable abodes of poverty, spurn the idea, that familiarity with want & wretchedness, renders him less susceptible of compassionate and tender feeling.

It cannot be expected that he who sees continually the awful struggles of protracted torture, should regard with as deep compassion, the gentle and

almost painless sleep of death, as the watching friend, who cools the fevered brow, without knowing how much greater & more prolonged pain others are called upon to endure. The saying that "Habit blunts sensibility" is true only within certain limits. The tender hearted sentamentalist, who sheds floods of tears over the feigned suffering of the Heroine of a novel, may accuse the Surgeon of cruelty - We would ask, is he cruel who removes from the sufferer the causes which have tortured him for years? or, when by accident, the life blood is fast rushing forth, and the pallid countenance & quivering limbs denote the approach of the last enemy of man, is he cruel who puts aside the grasp of death just ready to seize his victim? is he cruel because he sits not down to condole with the friends of the dying man?

Is it not rather the noblest manifestation of kindly feelings, and the surest ~~manifestation~~ indication of a sympathizing heart, which enables a man to overcome all the horror & disgust which scenes of pain inspire, and endure them all for the sake of saving the life of a fellow creature, be he the rich

man, or the beggar at his gate?

It is not that agitated excited form of emotion ~~that~~ which unsettles & unfairs the judgment, and results only in condolence & kind wishes, that the Physician needs, but a calm judgement, a steady hand, and a ~~sympathizing~~ tender heart.

There are, it is true, some in the profession whose "hearts are dry as summers dust" from whom the "tale of suffering draws forth no tear of sympathy"; 'tis not of these we would speak; we would appeal to those whose large experience, has made them our guides & examples, and ask them; if in their long long lives of professional duties, their kindlier feelings have not been yearly enhanced as new objects of suffering have been presented — we would ask if their familiarity with disease & suffering & death; while it has quieted the excitement of earlier life, and ennabled them to witness scenes of agony with the self command which is so necessary to success, has not also given greater strength to the practical principle of benevolence, & a more determined will & purpose to accomplish for the

relief of suffering & for the health and well being of the body- all that their skill & effort can accomplish-

We know of no profession, in which sympathy for suffering is more imperatively demanded, than that of medicine, and no science better calculated to improve & adorn all those sentiments which ennoble the heart & mind of man-

It is obvious, then, that with demands so elevated and important, the Medical practitioner should posses high moral as well as intellectual cultivation. in order to secure for himself such a standing in the affections of individuals & families, that the influence which he wields, may redound to his own honor, and the interests of the community in which he resides.

Suffering humanity in all its prostration & weakness is constantly brought under his observation- he will often, inadvertently, witness scenes of trial, and be obliged to hear disclosures, which require on his part the most profound secresy- If his deportment does not manifest a scrupulous regard for honesty of thought and action, he can never

receive the confidence of that portion of society, who are not even themselves governed by religious principles, much less can be expected to receive the patronage of those in whom truth is the motive of every action.

But aside from the advantages which accrue to himself from an upright course of conduct, we would speak of his superior opportunities for doing good to others.

The lawyer, called chiefly to engage in matters of litigation, the strifes of human selfishness, bound, as he is to defend the wrong as well as the right, is not brought, professionally, into contact with the finer traits of individual character, nor with the more tender affections that stir the human heart.

We speak not disparingly of his profession; nor, would we derrogate from its high utility - we only say, that his calling confines him peculiarly to an arena of conflict, and restricts his influence to those civil & political interests of men, which do in fact, if not necessarily involve collision & strife.

The minister of the gospel, although his mission is of the most exalted character, is still limited chiefly, to his intercourse with his charge; it is

province to withdraw the minds of his hearers from the things of time & fasten them upon things of ~~still~~ deeper ~~importance~~ interest; although he should possess an accurate knowledge of the world, he is still restricted from the means of acquiring this knowledge. His visits are often dreaded by the sick man, his conversation is too solemn, and puts him in mind of his funeral; although under other circumstances, he would willingly listen to his instructions, his thoughts are too much occupied with his sufferings, to permit him to lend an attentive ear—

But, the Physician, is ever to the sick a welcome visitor, and intercourse with him, is that of confidence, which invites, not merely, his prescriptions for the body, but such counsels & warnings, such consolations & even reproofs, as the exigency of the case may require. Even when no other aid can be rendered, his mere attendance & sympathy will often be called for, to mitigate what he cannot cure; & to soothe the sufferer for whom it is in vain to prescribe—

Indeed, if there be genuine benevolence in the heart, the practical purpose to diffuse good among men

there can be no want of occasions for its exertion to the Physician. When the toils of the day are over, how often is he called to give the hours of night to his fatiguing occupations; not to repose, which exhausted strength may demand, but to watchful anxiety around the bed of some feverish sufferer, whose disease is death, or, perhaps the infection of death to all who witness it.

How many, and how delightful are such occasions of beneficence, in which restoration from sickness to health, brings back all that is valued in life. In poverty, employment, which provides sustenance for a dependant family. In wealth, the capacity of enjoyment, when otherwise all its possessions are valueless.

What an angel visitor is he, who spares to the fond husband, his devoted wife, or, when Death would write her name Widow, that name of desolation & grief, rebinds the ties of their companion-ship in renewed health & happiness.

Thus, the Physician, by his constant opportunities for insight into character of every

varying conditions – to day, the comforter of the Philosopher – to morrow, the watcher by the humble bedside of the Peasant, can, by his example, & a word fitly-spoken, exert a most marked & healthful influence, and, to do all the good in his power, it is not necessary, that he should be ostentatiously moralizing or preaching on every, or on any occasion, but, striving by his judicious counsels – his attractive & correct deportment, let him rouse pure affections, and instill sound principles into the minds & hearts of his employers – deeply concerned for the welbeing of a dying body, but not unmindful of the health and vigor of that spirit which never dies –

"We have glanced at some few of the qualifications, which he should possess, who would reach a high standard of eminence in his profession. We are aware that we have been urging truths which are generally recognised, but we know full well, that however willingly they are acknowledged, they are not always reduced to practice –

If a high degree of eminence, my Classmates, be your ambition, let nothing deter you from the attainment of so honorable an object— let nothing prevent you from attempting to acquire, for your own use, or the improvement of the profession, that amount of knowledge & skill, which will gain for you the esteem of mankind.

The time which we have already spent in the pursuit of medical science, has been short; and here would we urge upon those, who are to occupy the places, which we are now leaving, the necessity of constant application, and unremitted energy in the pursuit of those studies, which are to fit them for the practice of the profession they have embraced. We would put to them the question, have you duly considered its requirements & its duties? do you know that you have need of the noblest qualities, which can adorn the character of man; kindness- generosity- the courage to dare all things for the good of a fellow creature; and, a readiness to submit to every hardship.

The dull hours of elementary study may be enlivened by the bright prospects of future eminence, and the disappointments of each present moment be forgotten in the enjoyments of brighter hopes; but, it would be well to bear in mind that "thorns oftenest grow beside the sweetest flowers."

From the numerous fields which are open for the exercise of your talents, it is to be supposed that you have selected the one most in accordance with your abilities and inclinations. Conduct your studies then, in such a manner, that they may be the source of your pleasures, as well as the means of your improvement. Be assured, that, he, whose mind is devoting its energies, to the comprehension of the fundamental principles of his science; — and, whose life is spent in the faithful & successful application of those principles need not envy the higher measures of happiness to be found in any other occupation.

While we are thus dissolving the ties of our professional education, we would

not forget the debt of gratitude, due to those, who on this day, have, as far as all technical distinction is concerned, admitted us to an equality with themselves; and in return, for the wisdom of their counsels, and the fidelity of their instructions, let us make it one of the grand objects of our lives, to prove ourselves worthy of the honorable testi-monials, which they have conferred upon us—

The arena upon which we are now entering, affords abundant opportunity for the gratification of a laudable ambition. It has demands upon us of a lofty character, as members of a learned, liberal & benevolent profession.

Let us rely, then, upon the soundness of our knowledge, the faithful discharge of our duties, the integrity of our principles, & we shall rest secure—

Delightful & even fascinating as in many respects our occupation will be, we shall find many hours em-ployed in mental & bodily drudgery. But it is not my province to point you to the darker side of the picture— Now have closed your visors, and must discharge your duties to yourselves— your

profession & your country.

Make it then your paramount aim to advance & elevate the standard of medical character - Avoid the name "Successful Routinists," seek rather for that estimation of mankind, which will award you the title of "Scientifically accomplished medical men."

Regard Quackery in medicine, as you would Hypocrisy in religion -

Let your conduct towards your professional brethren be characterized by a spirit of forbearance and kindness -

And, as we are now to seperate, let Memory cherish the ties of acquaintence & friendship which have been formed in our common pursuits, and, while parting, let it be to us a consoling fact, that we are uniting ourselves together, & with those who have preceeded us, (by stronger bonds than are severing) as the members of a numerous and noble brotherhood - In the preservation of these sacred ties, & in reaching the goal of honor, fame, and emolument at which you aim,

God speed you - Farewell - N. W. Taylor Jr.

XIX.

Dissertation on Blood Letting.

By
Charles Thomas,
of Courtland, N. York,
Candidate for the Degree of Doctor in Medicine.

Bloodletting

Of all the means hitherto made use of, for the removal of disease, there are probably none more important and effectual, than that of bloodletting. Its effects upon the System are so various, diversified, peculiar to itself, and so beneficial in such a large share of the most dangerous affections to which the human System is liable, that a certain Knowledge of them is necessary to enable any one to practise the healing art with any thing like success. If the old adage is true "That to know the disease is half the cure" to know the effect which your remedies may have upon disease will make out the other half of the Information necessary to its Completion. For although the nature and pathology of the disease which the Physician may be called upon to treat, be thoroughly understood, as also the indications which are to be fulfilled, how is he to know how to treat the case successfully and fulfil those indications unless he also understand the effects which the remedies he may prescribe for this purpose have upon the System both in a State of health and disease. Being thoroughly acquainted with these, he has a plain course to go

to pursue. He's sees the disease and perceives what remedy is required. this he applies skilfully — the disease yields to its influence and a restoration to health it may be is the happy result —

The effects produced upon the System at by bloodletting, depend in a great degree upon existing circumstances. The quantity taken — the manner in which it is taken — upon whether the patient is in a state of health or otherwise — and if not, upon the nature of the affection under which he may be laboring at the time. And in fact upon the condition of the System at the time the blood is abstracted, whether that condition be the result of disease, age, sex, natural habit of body or anything else which may exert an influence over it. But it may be, and is, I believe laid down as a general rule, that anything which has a tendency to debilitate the System, and reduce the strength by impairing the functions of those organs whose office it is to give it strength and vigor, by preparing and imparting to it the materials for nutrition; viz the organs of digestion, tends to render the System less capable of sustaining the loss of blood; or in other words, to diminish the tolerance of that System. The existence of this

last circumstance, would by including the formation of new blood, under its abstraction, in any considerable quantity liable to be followed by irrecoverable sinking and annihilation.

The direct and immediate effect of bleeding is of course to diminish the quantity of blood circulating in the body. This affects the action of the heart not only by a direct withdrawal of its proper stimulus, but also indirectly through the medium of the brain. The hearts action being in some measure dependant upon the nervous influence transmitted to it from the brain it follows inevitably that when from any cause this influence is withdrawn, its action must be more or less enfeebled. Abstraction of blood carried to a certain extent will accomplish this. And this extent must be either to Syncope, or an approach to it. Directly reducing the quantity of the stimulus of the brain, the blood sent to it, and the organ whose office it is to send it there, the heart, its power of performing its functions is, in this way both directly and indirectly affected, and insensibility more or less complete is produced. This reacting upon the heart still further lessens the force

And frequency of its Contractions, Arterial Blood is circulated with less force and rapidity, Muscular Strength diminished, And the general System to a greater or less degree Prostrated. If the quantity of the Blood should still further be diminished to any Considerable Amount, it is more than Probable that the ability of the System to recover from it, would be destroyed, reaction Prevented, And death by Asthenia be the result.—

Bloodletting is divided into General & Local.—The former including the Operations of Phlebotomy and Arteriotomy—the latter performed either by cupping, Scarification, or the application of Leeches. The object of General Bleeding being chiefly, by lessening the quantity circulating in the whole System, to relieve the Constitutional Symptoms, while that of local, or topical Bleeding, being more Especially intended to relieve the local Symptoms, by diminishing quantity of Blood in the diseased Part.

With a knowledge of the effects of Bloodletting, And the manner in which it Produces them, it could then that it would not be a difficult matter to perceive, why the tolerance or Power of bearing the loss of Blood, should vary with the kind of Constitution, as well as the Condition in which it

may be at the time. And as to the kind of Diminution, it would be inferred from its effect in reducing the force and frequency of the heart's contractions, and of the force of the circulation generally and muscular strength that these effects would be better borne, that the tolerance would be greater, in persons possessing a strong and robust constitution, of which the pulse is naturally full and hard, indicating a vigorous circulation, than in those constitutions which are the reverse of this; whether it be natural, as there or caused by disease—as is the case in diseases of debility or when the powers of life are depressed from the long continuance of any disease. It would be inferred also that in persons whose constitutions are enfeebled by age, in whom the circulation is slow, feeble and often intermitted, and whose blood making powers are impaired and muscular vigor nearly destroyed, that the tolerance would be less also.

Also the manner in which the loss of blood affects the system is plain to us, why it should make a difference as to the quantity abstracted necessary to produce syncope, whether the patient is in the erect or recumbant position during its escape, or whether it is drawn from a large orifice or otherwise. In an erect or sitting position, the force of gravitation, not only assists the passage of blood to the head, but renders more difficult, but it at the same time facilitates its return in the venous trunks; and consequently the brain feels its loss sooner, in this position than it would in one having an obedient effect upon the circulation. As is the case in the recumbant, especially if in this position the blood should be drawn from a small orifice. Escaping slowly it would give sufficient time for the blood vessels to contract upon themselves, and diminish their their calibre with a rapidity proportioned to that with which the blood contained within them diminished. In this way the bleeding may be

continued almost to death without the supervention of Syncope.

Sex is another circumstance supposed to have an influence upon the tolerance of the system under bloodletting. The female sex from their comparative feebleness of constitution, irritability & susceptibility to impressions, are less capable of sustaining a given quantity of blood than the other sex.—

The quantity ordinarily required to produce Syncope, or an approach to it in adult persons generally is 16 ounces. This is the average quantity laid down in the books, but as there is no rule but what has its occasional exception, so is it in regard to bloodletting.— Of Idiocyncrasies, there is a great variety. There are some constitutions which bear the loss of blood comparatively well, and the reason why they should do so appears sufficiently evident; and there are others which sustain its loss but poorly and of this we can imagine the whys & wherefores, but it occasionally happens that the practitioner meets with peculiarities of constitution that seemingly defy the use of the lancet, that are able to suffer excessive bleeding without the

occurrence of fainting, although apparently, of no greater tolerance than persons ordinarily. And for this we are unable to assign any satisfactory reason but attributable to a peculiarity of constitution or idiosyncrasy. These are rare exceptions, but nevertheless they are sufficiently numerous to show that some caution is necessary on the part of those who make use of this remedy in its administration.

But it is for effect that blood is to be taken. And all idiosyncrasies out of the question, an amount sufficient to produce this effect should be taken. This effect to be produced is in a great measure determined by existing circumstances. But as a general rule syncope, the blood should be allowed to escape till dimness about the eyes, pallor of face, fluttering pulse, relief of pain, (if present) nausea &c indicate that syncope is approaching. But complete syncope is to be avoided. The prostration, or depression of the vital powers produced by the abstraction of blood, is but transient. And to it succeeds the excitement of reaction, which excitement it is written is to a certain degree proportioned to the degree of prostration or faintness: And this excitement is to be prevented as much as possible therefore, by

avoiding complete Syncope, — and circumstances requiring it, a second bleeding. — It is also laid down I believe as a general rule in regard to the quantity to be taken when indicated, that this should be sufficient to bring some relief to the symptoms present. —

To any one understanding the effects produced upon the system at large and the functions of the heart and brain, by bloodletting, it cannot be a difficult matter to divine in what kind or class of diseases it would be called for. In some diseases, such as depend upon any local congestion in any part of the system, or acute inflammation, especially if it be of any vital or other important organ, it is an all important remedy and one which admits of no substitute. In the treatment of acute inflammation, bloodletting is a remedy which is more effectual perhaps than any other. At least we have the authority of the most Eminent writers to this effect. Watson in his Chapter on this subject reasons in the following manner. "Blood" says he being the natural stimulus of the heart, we should deem it probable that a removal of a portion of this fluid, would diminish the force with which the heart contracts

And as an inflamed part contains a proportional quantity of blood, and as (with the exception of resolution and mortification which really are terminations of inflammation) as with these exceptions, all the events of inflammation consist of effusion of certain parts of the blood from its containing blood vessels, we should be included in opinion "to believe that the amount of these effusions would be checked and limited by lessening the supply of blood to the inflamed organ as well as by abating the force by which the blood reaches it, and we find it in fact to be so — blood forms the pabulum of the whole process" "If" says Mr. Lawrence we may allowed to use figurative language, the obvious increase of heat in the part is analagous to that of fire, and blood is the fuel by which the flame is kept up. In fact if we could completely take away its blood, we should be able entirely to control or arrest the increased action."

But it is not every case of inflammation that requires the abstraction of blood. The indications for bleeding and the quantity required to fulfill these indications are to be determined by a variety of circumstances, as the intensity and stage of the inflammation, the degree of constitutional disturbance, importance of the organ attacked, general

condition of the System, And especially the quality of the Pulse. If ~~well marked~~ symptoms of fever be present, attended with considerable disturbance of the general System, this would form an indication of some importance, not of sufficient importance however, to warrant the use of the lancet, unless we are satisfied that it is dependant upon inflammation, and that of some consequence in the Animal Economy: On, upon whose functions, life or its enjoyment is altered

As to the stage of the disease, It is in the Primary Stages of inflammation, at its commencement, before any serious disorganization has taken place, or any of the Events of inflammation occurred, that the use of the lancet is the most strongly demanded, most beneficial, in its results. This is a rule established by most writers upon this Subject and Approved by without exception. It is only in the first or Acute stage of inflammation, that generally we have present those symptoms or Signs, which are considered as indications of Bleeding. It is then, while the inflammation is increasing in Severity, And before the Bloodvessels have completely lost their tone and contractility, that we can by a timely abstraction of Blood

check the progress of the disease, and prevent those se-
-rious consequences which would be likely to ensue, if
it was not interfered with. This stage once passed, we
can rarely expect any good results to follow from vene-
-section. We may by bloodletting, prevent perhaps the
events of inflammation, but having once occurred, we are
obliged to resort to other means to remove them.

But it is by the kind or quality of the pulse, that
we are most influenced perhaps, in determining the ques-
-tion of bloodletting. It is by the quality of the pulse
that we are informed of the force and frequency of the
hearts contractions, the state of the circulation, and from
this in some measure the degree to which the constitution
is affected by the local disease. The kind or quality of
pulse which is stated to be the best indication for blood-
-letting is what has been described as the quick and
hard pulse; the quickness being measured by the velocity
and impetus with which the contractions of the arterial
coats are made, and its hardness, by its incompressibility
or the resistance which is given to the finger upon pressure.
As there may be present any one of these symptoms, with-
-out the presence of inflammation, and which may be

the result of other causes than inflammation, the existence of any one of them would not of itself be sufficient in all cases to warrant the use of the lancet. — Its use being the more strongly indicated in proportion to the number of these symptoms which are found to be present.

Bloodletting is a remedy powerful for Evil or good according to whether it is employed at the proper time, or under proper circumstances or otherwise. And it is by no means an easy question to determine at all times, when it is indicated, whether we should prescribe the lancet, or refrain from its use. At times the affected system calls in language that cannot be mistaken or misunderstood, for the operations of relief from bloodletting. While at others, although its abstraction would be productive of as equal good results, and the operation as urgently demanded by the nature of the disease, the signs & symptoms by which he is to know this, are so obscure, and the indications so faintly marked, that he hesitates what course to pursue. He is in a dilemma, which admits of but two alternatives, either to omit bleeding, delaying it till symptoms more

clearly indicating its necessity become cognizable, or when the vein and watch the effects produced upon the disease. It is in this way, by noting the effects produced upon the symptoms of disease, that it is of material service in forming diagnosis of disease, distinguishing its nature, and ascertaining its proper mode of treatment. And bloodletting is a remedy which more than any other perhaps, requires a correct diagnosis, and perfect understanding of the character of the disease for which it is to be exhibited. Used indiscriminately, or without proper attention to these points, it may, and must often be productive of serious ill consequences

XX.

Dissertation,

"Sana mens, in sano corpore."

By

Sylvester Wooster Turner, B.A.

of Killingworth,

Candidate for the Degree of Doctor in Medicine.

Sana mens, in sana corpore.

We live in an age of excitement. The demon of unrest is abroad, like an evil genius haunting the universal mind, goading it on to the attainment of some prospective good — with scorpion whip hurrying it forward to the ever receding goal of its imaginings — hiding from the mental vision the bright flowers and luscious fruits so profusely showed in our path, and granting no repose to some or body, till the silver cord is loosed and the grim messenger Death administers the only opiate that can quiet the unsatisfied longings of the mind. It is abroad in forms innumerable — forms which commend themselves to every mind. It points the scholar to knowledge as the chief good and he goes mad, melancholy, [illegible] in the search. It points the astronomer to distant [illegible] and straight he lays "plots & plans & horoscopes, and searches for it with long telescopes among the stars." Theologians, wise above what is written are bringing

darkness out of light, and sowing broadcast on the surface of society, the misty doctrines which shall now produce an abundant harvest of infidelity—

For the multitude, there is Millerism, & Perkinism & Mesmerism, & Mormonism, & Fourierism & Transcendentalism, & a mighty host of other isms splendid humbugs of the day, which have risen to curse the world, and turn topsy-turvy the brains of men—

The Babel-builders of the 19th century are a numerous class. Their name is Legion— Into their system of architecture they have introduced "confusion worse confounded". That word Stability has come to have no meaning. The sea of intellect, stirred up from its lowest depths, raging, tossing & tumbling, is every day making wrecks of immortal mind— Our Republic numbers twenty-three asylums for the Insane— two more are building— & now ten or twelve States are without a retreat for this numerous & unfortunate class—

But this is a mere trifle in the account— Untold thousands are mad in pursuit of money or fame— The sound mind is the exception in these days— Through society you can hardly find the man

whose mind is not rent by a thousand conflicting emotions which do inevitably change in a greater or less degree the corporeal functions. For it is now universally admitted that there exists the most intimate connection between the mind & the body, & that the latter sympathizes with the former in all its ailments.

The question then comes home to every medical practitioner, "Canst thou not minister to a mind diseased?" If not thou hast but partially learned thy profession. But if, while giving thy attention to the physical, thou hast not neglected the mental causes of disease there is a vast field open before thee. Put forth thy hand thou hast possibility in thee for much — "the possibility" as Carlyle says "of writing on the eternal skies the record of a heroic life." Instead of damning thyself to an eternal lame, by dilling patients through the administration of most powerful agents, thou mayst reach the "rooted sorrow" with a moral balm, & by a skilful union of the moral & physical, restore thy suffering fellow man to happiness and usefulness. How often is the remark heard among the common people, "such a man is very skilful

in fevers. but he does not succeed in chronic complaints.

Why? These chronic complaints are usually complicated. The mind & body are both diseased and if we would effect a cure we must act on both. The mind then as well as the body affords a wide field of study to the pathologist, and the diseases to which it is subject, are surely deserving of our profound attention.

The limits to which we are confined will allow of our giving only a mere ~~a~~ time of mental diseases, & their effects on the physical organization. All we propose is to give a little sketch of a few of the more prominent passions, & speak briefly of the mutual influence of mind & body on each other.

It is probable that few among the unlearned have any conception of the multifarious train of diseases that originate from moral causes and it is also probable that the medical profession in investigating the remote causes of disease, give too little weight to those existing in mind. Thus in the words of a distinguished medical writer, "does it often happen, that while the Physician is imputing the infirmities of his patient to all their most familiar causes, as bad

diet, impure air, want of exercise, etc. — it is in reality some unhappy & unrevealed passion which is preying on the springs of life. A knowledge of the secret troubles of our patients, would in many instances shed our light on their treatment, or save them at any rate from becoming the subjects, if not the victims of active medicinal agents.

It may be laid down as a general rule that the pleasurable passions as love, hope, friendship &c, exert a salutary influence on the health of the body while the depressing passions as anger, fear & grief produce a contrary effect. Who has not experienced the increase of vital action while under the influence of joy? The blood courses more freely through the system, the countenance expands, its expression brightens, and the rich glow of health appears on the surface. The whole body participates in the happy condition of the mind, mirth & jollity get the mastery over the individual, and the heart may literally be said to be "light & jumping for joy." But I need not dwell on the beneficial influence of a happy frame of mind on the corporeal functions. "Love, hope & joy" says an eminent physiologist, "promote perspiration

quicken the pulse, promote the circulation, increase the appetite, and facilitate the cure of diseases."

But excess of pleasure, like excess of pain, too great and too sudden joys, as well as deep and overwhelming grief may become dangerous to health and the violent laughter may lead to death. The nervous system may become unduly excited — & the motion of the blood may be so unnaturally increased as to cause apoplexy. The higher faculties of the mind may even yield, and permanent derangement be the result of which instances are found in History, as the soldier who "having had the honor of wounding Cyrus in battle, became so enjoyed that he lost his wits from the moment" — & again in the case of the artisan of Milan "who having had the good fortune to find an instrument that formerly belonged to Archimedes, ran mad with the fit of transport into which he was thrown in consequence"

If then as we have seen the pleasurable passions exert such a powerful influence over the whole system, there is no reason why they may not often be made use of as medicinal agents. Indeed we have on record, many well authenticated accounts of the wonderful cures,

which have been brought about in this way.

Tertian agues, Strictures of the Pylorus &c &c have thus been removed and according to Dr. Eberle, in the cure of Intermittents, the imagination can be made to exercise a most powerful control. "So powerful," says the same writer, is the influence which the mind exercises over the operations of the animal economy. Intimate and strong are the relations which subsist between the corporeal and moral parts of our nature, that there are few if any diseases, in which we may not derive important advantages from calling forth the invigorating and benign powers of hope or from dissipating the depressing emotions of [illegible]. In Lithiasis he says a tranquil state of the mind has a most important curative influence. We see then, that all pleasing emotions, if not in excess, exert a most happy influence on the general health. The heart plays more freely. The respiration is more placid & regular. The appetite is improved — the digestive function receives new vigor, in fine all the powers of life are improved — and the vertical enjoyments it brings with it are multiplied.

Who has not seen the mild grateful & [illegible] influence

of Hope? And what physician has not [illegible] the effect of his prescriptions by encouraging this feeling in the breasts of his patients? "Its characteristic" (Seymour) is to produce a salutary medium between every excess, defect of operation in every function. Consequently it has a tendency to calm the troubled action of the arrests, to check & soothe the violent and irregular impetus of the nervous system and to administer a beneficial stimulus to the oppressed and debilitated powers of nature. A calm, contented & cheerful spirit is always reckoned an indication of longevity. With one possessed of such a spirit, life passes well, & when at last its complicated machinery wears out, —— "Calm is his exit! —

"Night dews fall not more gently to the ground,
"Nor weary worn out winds expire so soft."

But it is with passions of an opposite character that we have chiefly to do — and we pass at once to a brief consideration of the effect on the system of the depressing passions — the exercise of which causes pain to the individual — and tends often in a powerful manner to disturb the healthy organization, and induce a train of diseases which baffle the [illegible] skill of the Physician.

As a striking example of the truth of the truth of my remark I mention structural diseases of the heart. Corvisart, Kreysigk, others assert that mental emotions are among the most frequent and powerful causes of them and Dr. Forbes states that he attended a poor woman affected with organic disease of the heart, of many months standing, which was suddenly produced by horror at seeing her infant scalded to death." Numerous instances are on record, in which sudden terrors, anger, or excessive joy has determined the blood so vehemently to the heart as to cause immediate rupture of the ventricles.

Every medical man knows too well the unhappy end of the celebrated John Hunter. Mr. Hunter was a man of splendid talents but the subject of violent passions, which from defect of early moral culture, he had not learned to control. Suffering during his later years under complaint of the heart, his existence was in constant jeopardy from his unquenchable temper; and he had been heard to remark that "his life was in the hand of any rascal who chose to annoy a tame hind." Engaged one day in an unpleasant altercation with his colleagues and being peremptorily contradicted, he at once ceased

speaking, [illegible] into an adjoining room, & instantly fell dead.
So in every case the heart [illegible] immediately the smoke of every fit of anger, the life of the passionate man who unfortunately labors under an affection of this organ, must be almost momentary in danger. We have seen then that mental emotions are the cause of diseases of the heart and that to the individual laboring under these diseases the same mental emotions may bring instant death. & we may where find that the like bodily condition may be either the cause or the effect of particular passions; that an interchange of influence is constantly & necessarily taking place between our moral & physical natures.

The general effects of the depressing passions on the body may be briefly stated. The blood abandons the surface, is thrown in undue quantity on the internal organs, and there follows that painful sense of stricture & suffocation which [illegible] the intensity of this [illegible] passions. An equable distribution of the [illegible] to the various [illegible] and its free circulation through the capillary [illegible] of the surface are most salutary to the physical economy.
So on the other hand an inequality in the dispensation of the vital fluid, or partial determinations of it, are

always most unfriendly to the health of the system.

Whenever the blood is disproportionately accumulated upon the internal viscera, their functions quickly become disturbed, and even their physical integrity may be endangered. These passions also act on the nervous system directly depressing, disordering, expending, and sometimes even annihilating its energies.

Let me once more repeat the general truth that the pleasurable passions tend to expand or enlarge the sphere of vital action, and to equalize its distribution, and are therefore salutary in their physical effects, whilst those of a painful nature have a contrary effect and are consequently deleterious. In proof of this we may contrast the countenance of the happy and confident, with that of the despondent and sad. In the one we find it bright and dilated, the blood playing freely in its extreme vessels — in the other pale sickly contracted and expressive of inward pain.

Anger is one of the prominent causes of insanity — among its occasional consequences are palsies, convulsions & epilepsy — apoplexy also succeeds to it, speedily terminating life. By it the appetite is destroyed, and

the function of digestion disordered. Cramps of the stomach follow the strong operation of this passion. The flow of bile is suddenly augmented, causing even a [illegible] or diarrhea. The secretion of saliva is diminished. There is an unpleasant dryness of the throat, frequent swallowing with frothy whiteness of the secretion, well described by the expression "foaming at the mouth". Acrimonia ages from the nose, lungs, stomach &c. are also the result of anger. Inflammations of the brain, lungs & skin are brought on by it. Haemoptysis, violent Pneumonia, Erysipelas & Urticaria have all been induced by this single passion. And the surgeon knows that when a bad temper wounds heal less kindly, when healed even break out afresh, and also that external inflammations pass less safely & regularly through their restorative processes & that the pus of abscesses may be speedily transformed from a healthy to a morbid condition, under such unfriendly moral agency.

And the observing physician too, knows that, other things being equal, the fractious patient recovers more slowly and is more liable to relapses, than the one who displays calmness & resignation in his sufferings.

It would be a task alike interesting & profitable, to follow still farther individual passions, and notice their operation as exciting causes of insanity. For it is claimed that every impression on the sensorium, through the external senses, and every passion in excess, may become a moral cause of insanity. That all, however opposite, [illegible] anger & pain — temperance & obriety, repletion & inanition, may have the same effect. And that all emotions of the mind are capable of disturbing the corporeal functions, & though in themselves moral causes, they become physical in their operation. Here there is a vast field open for investigation.

The mysterious connexion of mind & body is not clearly understood, & it remains for some future Pathologist, more successful than his predecessors to ascertain the seat of the primary invitation of insanity.

I may be permitted to make an application of the subject to the medical man. He is emphatically a [illegible] of care & anxiety. [illegible] the [illegible] of Poe is [illegible] & [illegible] responsibility

resting upon him, as he goes forth to heal the sick, knowing
so that however skilful, & however faithful he may be,
[illegible] his right hand & on his left
[illegible] in best [illegible] are not always [illegible]
success. He may meet the shafts of censure, where he
[illegible]
[illegible]
[illegible] be [illegible], the real merit [illegible] of the
Physician. As a natural consequence, the painful
passions, born of [illegible] hope & [illegible] pride
may take possession of his soul, [illegible]
his moral peace, [illegible]
[illegible], indigestion, [illegible] palpitations [illegible]
sorts of irregularities of the heart's action, burdening
[illegible] & [illegible] its [illegible]. [illegible]
then that the Physician learn to conquer his passions
and keep them in absolute subjection to reason.
[illegible]
moral affections. That as he every day sees in the
beautiful architecture of the [illegible] temple, [illegible]
proofs of the skill of its [illegible] he may
be able to say in the language of the Scripture,

[illegible] will keep him in perfect peace whose mind
is stayed on thee" "Man maintained by dependence
[illegible]
[illegible]
[illegible]

XXI.

Dissertation on Varicose Veins.

By
Andrew Judson White,
of Canterbury,
Candidate for the Degree of Doctor in Medicine.

Varicose Veins—

When a vein becomes varicose it has a blue color, becomes dilated, knotty, and irregular, and winds in a serpentine manner under the skin— This condition of the veins gives rise to cutaneous swelling, weight, numbness of the part from which they arise, to inaptitude for active exercise, tendency to chronic inflamation in their coats, and to bursting of the vessel at the most prominent part, and hence to serious and even fatal hemorrhage, as well as to very obstinate ulcers on the extremities.

As regards the morbid condition of the veins affected, there are various opinions—

Note. By some it is contended that the valves are either thickened or ruptured in this affection— But this does not seem to be demonstrated by observation. When various veins have been opened, the valves have been found in a healthy condition, thin and transparent—

Andral admits six different varieties of varix— 1. Simple dilatation without any other

attenuation -

2. Dilatation of veins with thinning of the walls of the dilated points -

3. Uniform dilatation of veins with thickening of their coats -

4. Dilatation at intervals with thickening of the coats in the points where the enlargements exist -

5. Dilatation of veins with the development of septa in their interior, which divide the vein into little cells, where the blood accumulates and coagulates —

6. The same condition exists as in the last species, but besides there are numerous small openings in the walls of the vein, which communicate with the surrounding cellular tissue. Here it is less changed —

In nearly all conditions of varicose veins there is an enlargement of their caliber, so that the valves fail to accomplish their object -

This disease is most frequently met with in the superficial veins of the inferior extremity; although it may occur in all the veins of

the body. It has been observed in the internal jugular and right subclavian.

The morbid condition of the veins constituting varix, is produced in almost all cases, by the presence of some cause, which obstructs the free circulation of the blood in the vessel.

Treatment.

The Treatment of varix may be considered either either palliative or radical.

1. Palliation. This consists in the removal of the cause, and in affording support to the dilated veins. The rectum should be emptied and kept habitually clear by suitable laxatives, and if other compressing agents are in force, they too must be removed, so far as it may be in our power.

If Hepatic derangement be indicated, the suitable remedies must be employed.

In case of Pregnancy we must patiently wait for the natural relief by Parturition.

An erect posture should not be long maintained.

Uniform support of the affected part is to be afforded by bandageing or the laced stocking.

The bandage should be applied in such a manner that it will diminish the calibre of the vein and volume of blood, and tight enough to admit of free motion of the limb. For this purpose, the India Rubber bandage is perhaps one of the best articles that can be employed. The laced stocking made of the same material, well adjusted would answer the same purpose and would be much more convenient.

In all these applications to the limbs the pressure should be a little greater on the lower parts of the limb than on the upper.

To effect a radical cure our object is to obliterate the trunk of the vein. To accomplish this many operations have been resorted to.

It was formerly the practice to lay bare the vein and to secure it by a ligature. By sometimes ligatures were placed upon the vein & when it was divided between them. On account of the ill success of this operation it is now universally abandoned.

The vein has been divided by a subcutaneous operation, as recommended by Dr. Benj. Brodie.

If this operation is performed it will be necessary to apply pressure to restrain the escape of blood—
* If the vein is to be cut at all perhaps this is the most favorable method—
Obliteration (of the vein) has been accomplished by applying firm pressure by means of an aperatus similar to a truss— In those cases where we are not compelled to abandon it, on account of the pain produced, this method answers very well—
The actual and potential cautery are ancient means for the cure of varicose veins—
Of late years this mode of treatment has been revived by Mr. Mayo and it is said to be attended with considerable success— A piece of caustic Potassa, of the size of a split pea, is put upon the skin over the vein where it is tolerably sound, covered with a piece of dry lint, and confined with a strip of common adhesive plaster.— In a few hours this application is to be removed and any simple dressing substituted— The escha which has reached the vein, separates after a short time— The vessel is found to be condensed above and

below, the sore heals, and permanent closure, attended with diminution of the varices is the ultimate consequence—

The patient must be confined strictly to the recumbent position, during and after separation of the slough, and until the breach of surface has been well filled up by granulation and consolidated. Hemorrhage is liable to take place if this is neglected—

The inflamation excited is of the adhesive kind, and attended by a deposition of fibrin, which is speedily organized so as to close the canal—

Instead of dividing the skin and tying or cutting through the trunks of varicose veins, or the obliteration of them with caustics another practice has arisen; viz. that of raising the vein with a portion of the skin and passing a needle a pin strait across under it— a ligature is then twisted around the projecting portions of the needle, drawing it sufficiently tight to obstruct the circulation and cause some little

pain— By this operation the inner coats of the vein are brought firmly in contact with each other and local inflamation takes place— The needles should be allowed to remain until they have excited considerable swelling and ulceration— In some cases where they seem to excite but little irritation they may be allowed to remain ten or twelve days, but in others they will have to be removed on the second or third— Mr. Liston thinks that they should always be removed within 48 hours after their application

This practice was first recommended by Velpeau, and it is now being very extensively practiced with a great amount of success— Velpeau has treated twenty five cases of varices in this manner with constant success— Mr. Liston says he has had recourse to this operation in an immense number of cases and with the most favorable results— Dr. Fergusson also speaks very highly of the operation. He says he has in no case met

with any unpleasant effects—

In all operations upon veins inflamation is liable to follow, and that of a very serious nature, often terminating fatally— Therefore the greatest caution is to be regarded— For some time previous to an operation, the patient should be kept in a horizontal posture, the ulcers upon the extremities should be healed, and should be in as healthy a condition as possible—

The Tinct. of Iodine has been recommended to be applied over the track of the vein— Some speak very highly of it, while others say they derive no benefit from it— No more than is due to the horizontal position, in which the patient is kept during its application—

Andw. J. White

YALE MEDICAL LIBRARY
3 9002 08670 4807

1846
Accession no. 22995
Author Yale Univ.
Theses for M.D.
Call no. Archives
T113 Y11